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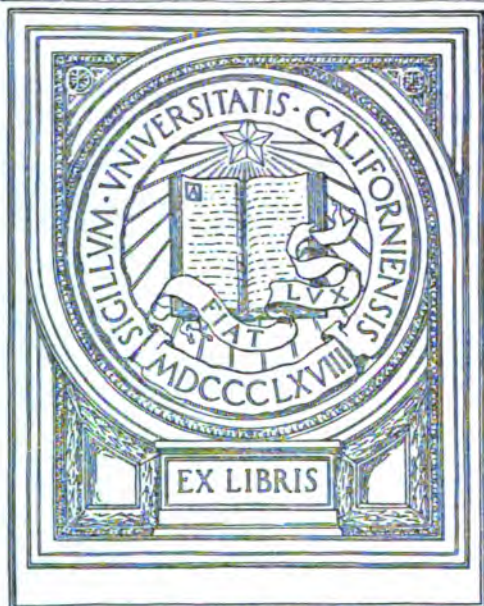
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APHASIA, WITH ILLUSTRATIVE CASES.

BY

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THE different combinations of symptoms known by the collective term, Aphasia, form a vast and most interesting subject which must necessarily be inadequately treated in a magazine article.

This condition is not a disease per se but only a symptom complex, the expression of a causative factor, as is for example hemiplegia. Consequently as the type of hemiplegia varies according to the location of the hæmorrhage, if that be the cause, so also does the type of aphasia vary according to the location and character of its cause.

It should be distinctly understood that to cause pure forms would require that the primary lesion, be exactly limited to the entire single speech area involved, totally incapacitating it, and not encroaching upon any other area of the brain. As all these conditions are probably never encountered in a single case the resulting aphasia is more or less complicated.

As the different speech centers are connected with one another by many association tracts forming a single mechanism, and as it is upon the harmonious activity of these component parts that the complete faculty of language depends, it must necessarily follow that interference with the normal functions of one center will affect its physiologically and anatom-

ically related fellows, thus further complicating our study. This is the diaschysis of Von Monakow.

The symptom complex of aphasia might be defined as a disturbance of intellectual expression by conventional symbols, (motor aphasia), or of a disturbance of perception of the received sensory impressions of these symbols (sensory aphasia), providing such disturbances are not the result of disease of the peripheral apparatus of speech, or are not essentially of insane origin.

The factors of intellectual expression are, a mind capable of evolving a thought, internal language for its symbolization, centers for the muscular effort memories necessary for the expression of the words as speech, writing or gestures, collections of multipolar cells originating axones controlling the muscles involved in these acts, and the peripheral organs of speech.

Before dealing with the varieties of aphasia it would be well to briefly consider language from the aspect of its mode of acquisition, in order to better understand the reason for the mutual dependence of its constituent centers.

When a child is shown an object and hears a name applied to it, not once but perhaps many times, there is formed a visual memory picture of the appearance of the object, in the left* angular gyrus, coincidently with the formation, in the posterior part of the first left temporal convolution, of a memory picture of the sound of the word applied as a name. Henceforth whenever the child sees that object the sound of its name is recalled, and vica versa, by means of the association tracts between these two centers, namely the auditory and visual speech or language centers. From the above it will be seen that the auditory and secondarily the visual speech centers are normally the fundamental centers by the aid of which others are educated, and it is by reason of this that auditory aphasia causes the most profound derangement of internal language. Each sensory impression of an object results in an appropriate memory picture. The sum of these memory pictures forms a concept. Loss of concepts results in the condition known as apraxia which being distinct from aphasia need only be mentioned here. The next step is an attempt, the result of the inherent mimicry of children, to imitate the

*When the left is specified in this article it is to be understood that it pertains only to those who are right handed.

sound of the name heard. When this is successful there are formed articulatory effort memory pictures in Broca's area, situated in the posterior part of the third left frontal convolution and in the insula. As before, this center is closely related to the other language centers. Mutism is the result of congenital deafness, unless the absence of the influence of the auditory speech center, in educating Broca's center, is compensated for by means of employing the senses of sight and touch. Later the child learns how to spell and read the name, adding to the visual memory picture of the object already formed, a visual memory picture of the appearance of the written name. When seeing this name in the future, there is recalled, by means of the association tracts, the appearance of the object, the sound of its name and the muscular effort memory picture for its vocal production. Following this there are acquired through practice graphic effort memory pictures, supposed to be stored at the base of the second left frontal convolution.

The faculty of language is the result of the harmonious co-operation of these different centers by means of their association tracts. To translate, so to speak, a word thought of into a spoken word, one must invoke the aid of the memories of the muscular innervations which have in the past caused the word to be vocally produced. Disease of the center for these effort memories, namely Broca's area and the insula produces the so-called true motor aphasia, ataxic aphasia, aphemia or the articulatory amnesia of Collins, which name best expresses the condition. Patients so afflicted lose, more or less completely, the power of voluntary speech, of reading aloud and of repeating words after another person, though retaining their internal language. The degree of the aphemia present may be looked upon as an index to the amount of involvement of Broca's area and the insula by the disease process. Except as a result of the concomitant intellectual deficit, the comprehension of spoken or written language is not greatly interfered with, but usually there is some agraphia, the reason for which will be explained under that caption. As the sound of words must be recalled before their articulatory effort memory pictures can be aroused, auditory aphasia usually causes a secondary disorder of spoken language.

The writing effort memory pictures are supposed to be "stored" in the posterior portion of the second left frontal con-

volution, disease of which has been known to produce *agraphia*. In this condition the patient, though possessing complete power over his muscles, has not the ability to write voluntarily or to dictation. Writing from copy is only possible by carefully drawing the letters as seen. The act of writing, particularly in the uneducated, is accompanied by and is to a certain extent dependent upon the vocal production of the words written, by whispering them, or by calling to mind their articulatory effort memories without their motor expression. Consequently writing is the result of what might be called self dictation. For this reason, and because of the usual implication of the writing center in diseases of the adjacent Broca's area and the insula secondary *agraphia* is a frequent complication of *aphemia*. That the dependence of writing upon vocal speech is not absolute, is demonstrated in the normal individual, by the experiment of writing Washington and simultaneously spelling Baltimore. This is accomplished by cooperation of the graphic with the visual memory center by means of their association tract instead of with Broca's area and the insula.

As the education of the vocal speech area was shown to be due, to a certain extent, to the auditory speech center so the writing center is dependent upon the visual speech center. Consequently secondarily to visual aphasia there occurs more or less disturbance of the ability to write, which is called sensory *agraphia*. This differs from the motor form in that the patient is unable to read as well as to write. As a result of auditory aphasia there is inability to write to dictation, and as the auditory speech center is the basic center of speech, there will be some disturbance, due to the interference with internal language, of the ability to write voluntarily, mainly in the form of *paragraphia*.

By analogy, reasoning from the mechanism of vocal and written speech, one would logically conclude that there must be a center for motor gesture memories, for the production of simple symbolic gestures and their higher development, the sign language. This hypothetical center has yet to be conclusively demonstrated though believed in by some neurologists. Loss of the faculty of sign language, known by the name of *amimia*, may accompany motor aphasia, though but little is known of it as a distinct clinical entity. Burr* reports

*Loss of the Sign Language in a Deaf Mute from Cerebral Tumor and Softening. by Chas. W. Burr, M. D. N. Y. Med. Journal and Phila. Med. Journal, June 3, 1905.

an interesting case of amimia but the causative lesion proved, at the autopsy, to be so large as to have no localizing value.

The factors of the comprehension of language are, peripheral receptive organs with their afferent neurones, centers in the brain for the reception of stimuli received by the peripheral organs, and higher centers for the memories of word sounds and visual images, cooperating with the other language centers to form an internal language. Lesions of the peripheral organs of sight and hearing, their afferent neurones and receptive centers produce simple blindness or deafness. Disease of the center for memories of word sounds, situated in the posterior part of the first left temporal convolution, causes auditory aphasia. In this condition Mettler compares the patient to a person hearing an unknown foreign language: "he hears the sounds correctly but they mean nothing to him."

As the auditory memories are the first speech elements acquired, and as the other speech memories have in part been obtained with their assistance, disease of this center causes more or less derangement of the entire faculty of language. This derangement is explained by Bramwell, in his lectures on aphasia*, as being due to the auditory speech center having as one of its functions, the translation of ideas into concrete internal speech for direct transmission, in order to be externally expressed, to the vocal speech area, or indirect transmission to the graphic speech center, by way of the left angular gyrus, in addition to its function of bringing into relation, with the associated language centers, impulses received from the visual speech center. These patients in addition to their word deafness, and naturally as a result of it, are unable to repeat words or write to dictation. Because of the disturbance of internal language there are present, disorders of voluntary vocal and graphic speech, defects in reading silently or aloud, and inability to name perceived objects. Collins says "There must necessarily be as many forms of auditory aphasia as there are distinctive symbolic sounds." But the only other form usually described is that in which there is a loss of the power of comprehension of musical notes, amusia, the center for the auditory memories of which is supposed to be located in the second left temporal convolution. Amusia is usually associated with auditory aphasia but a few cases have been known to occur independently. Loss of all sound memories is known

*Lancet, Feb. 10-06.

under the name of psychical deafness, of which auditory aphasia is only a part.

Comparing visual and auditory aphasia there must be as many types of visual aphasia as there are varieties of visual impressions. Psychical blindness, due to lesions of the parieto occipital cortex, is the result of loss of all varieties of visual memories. Optic aphasia is characterized by inability to name objects seen. The term apraxia is also applied to the condition in which there is loss of comprehension of the use of ordinary objects seen. Verbal aphasia, or alexia, the ordinary type of visual aphasia, is caused by lesions of the left angular gyrus in which are stored the memory pictures for written words. Visual amusia is the loss of power to read musical notes.

Alexia, or word blindness, comprises inability to read, though the words are seen, and to copy in the usual manner. A copy may be obtained by means of drawing the letters seen without understanding them. Exceptionally the patient can comprehend writing by following the letters with a pen and, so to speak, read the graphic effort memories called into play.

As the education of the graphic center is secondary to that of the visual center, alexia may cause more or less derangement of the power to write voluntarily because the patient can't call to mind the appearance of the letters and words he wishes to write. When there is difficulty in writing voluntarily writing to dictation may be preserved, because of the graphic center being stimulated by the auditory speech center. The more accustomed a person is to writing the less dependent is that act upon the visual center. In the blind, tactile impressions compensate for the loss of, or lack of development of the visual center.

The many different major and minor language centers are connected with one another by means of association tracts, interference with which causes as many subvarieties of aphasia as there are tracts.

Subcortical motor aphasia, the true motor aphasia of Dejerine, is the result of interruption of the tract running from Broca's center to the cortical motor cells of speech, located in the lower third of the precentral convolution. In this condition, the articulatory effort memory pictures not being interfered with, words and the muscular efforts necessary for their production as speech, can be recalled and internal language is

intact. Writing is not involved at all, which fact is of assistance in differentiating this variety from aphemia. The Proust-Lichtheim test, supposed to be of similar value, is made by having the patient indicate, by means of prearranged signals, how many letters and syllables are in the name of an object shown him. This, when successful, is thought to signify the integrity of its articulatory effort memories. Theoretically this test should not necessarily prove that Broca's center is intact for, in the event of its being diseased, the patient should be able with the aid of the visual, auditory and graphic speech memories, to recall and signify the number of letters and syllables in the name taken as a test. Practically the differential diagnosis between this type and aphemia is exceedingly difficult and often impossible.

The most generally known and understood of these sub-varieties is the one termed paraphasia, or intercortical motor aphasia. This is due to lesions of the association tract, just beneath the insula, running between the auditory speech and Broca's centers. The symptoms of this condition are, inability to repeat after another person words heard, transposition of words in voluntary speech, and the employment of words which the patient had no intention of using, with a resulting unintelligible speech. In addition to these symptoms, because of the interference with internal language, there is secondarily more or less agraphia, with an imperfect understanding of vocal and written speech.

Intercortical sensory aphasia, also known under the names of transcortical aphasia, optic aphasia, and paragrammia, is the result of interruption of the tract between the auditory and visual speech centers. Its symptom complex is an inability to write to dictation, to recall the name of an object seen or to remember the appearance of an object named. As the visual and auditory memories are intact the object is recognized when seen and the name recognized when heard. Talking, the repeating of words after another and voluntary writing are normal; but the understanding of written or spoken language is imperfect.

Subcortical auditory aphasia, the true auditory aphasia of Dejerine, is differentiated from ordinary auditory aphasia by the absence of any disturbance of internal language; its manifestations being only word deafness and consequently inability to write to dictation or to repeat words after another. Ana-

logously there is a subcortical visual aphasia, the true visual aphasia of Dejerine, resulting from lesions of the tract between the primary visual center and the left angular gyrus. The symptoms of this type are visual aphasia, without involvement of the internal language, and right (field) homonymous hemianopsia.

Tactile aphasia is described by Jones, who first reported a case,* as consisting of loss of the faculty of naming objects placed in the patient's hand with retention of the ability to recognize the qualities and uses of the object. This condition should not be confused with astereognosis, which it resembles, for in the latter condition the patient does not know the uses of the object. There should be cases of olfactory and gustatory aphasia, but I know of none such having been reported.

As the faculty of speech is part of the intellect, any profound disturbance of this faculty must result in an intellectual deficit in addition to aphasia. This deficit is easily elicited in practically all cases of aphasia.

Quite recently Marie† has claimed that the present sensory aphasia is the result of an intellectual deficit, due to lesions of the zone of Wernicke, which includes the supra and infra marginal gyri and the posterior extremities of the first and second left temporal convolutions. That Broca's center has no functions at all in the production of spoken language, and that the present motor aphasia is due to a lesion of the zone of Wernicke, with additional involvement of the lenticular zone, producing anarthria. These statements have raised a storm of protest from neurologists in general and from Dejerine in particular.‡

The most important objection to this theory is the fact that it entirely disregards the many cases in which a comparatively pure aphemia has been the result of a lesion strictly localized to Broca's center. Lesions of the lenticular zone, resulting in speech disturbances, cause anarthria, using this word in its usually accepted sense, which is an inability to articulate,

**Revue Neurologique*, Jan. 15-07.

†*Pierre Marie. La Semaine Medicale*, May 23 and Oct. 17, 1906.

‡For the views of local neurologists on this subject see F. X. Dercum *Marieb Views on Aphasia*, N. Y. & Phila. Med. Journ., Jan. 5-07. Reports of a discussion on aphasia held at a joint meeting of the N. Y. and Phila. Neurological Societies. *Journal of Nervous and Mental Diseases*, 1907, p. 459. The Symptomatology of Lesions of the Centric zone with some Discussion of the Pathology of Aphasia. Chas. K. Mills and Wm. G. Spiller. *Journal Neu. Ment. Dis.*, 1907, p. 558.

the effect of paralysis of the upper motor neurone type. This brings up a second objection because this anarthria, a purely motor paralytic derangement of speech, does not at all resemble the symptom complex, frequently encountered, known under the name of aphemia. Another is that this theory localizes the intellect to Wernicke's zone and regards aphasia as a result of intellectual deficit instead of as the cause.

In the face of the general opposition to these views would any neurologist be justified in refraining from trephining over Broca's center, when there is a pure type of aphemia, for example in a case of traumatic meningeal haemorrhage, without any other localizing symptoms being present?

Marie's classification would undoubtedly be most convenient for the psychasthenic neurologist, in making diagnoses in those complicated cases, instead of being under the necessity of making a minute examination, carefully studying the symptoms present and perhaps consulting a few text books and magazines for an explanation of an unusual combination of symptoms.

From the service of Dr. Weston D. Bayley, in the nervous department of the Dispensary of Hahnemann Hospital, I have selected the following recent cases as being interesting, and ones which illustrate the complexity of the average case of aphasia.

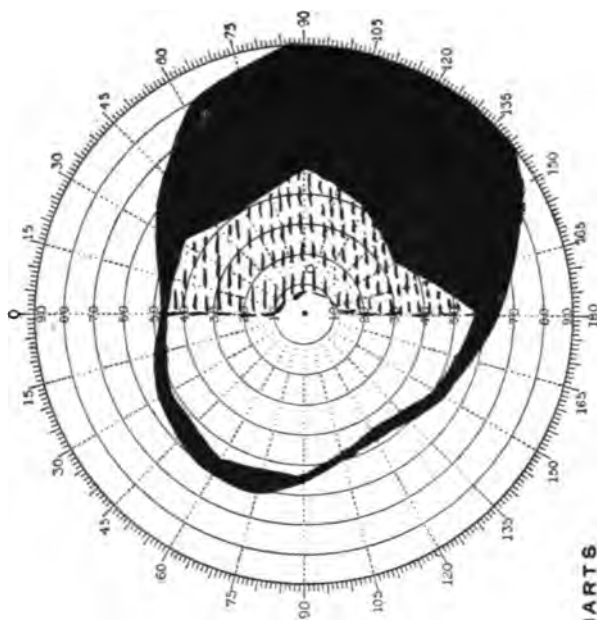
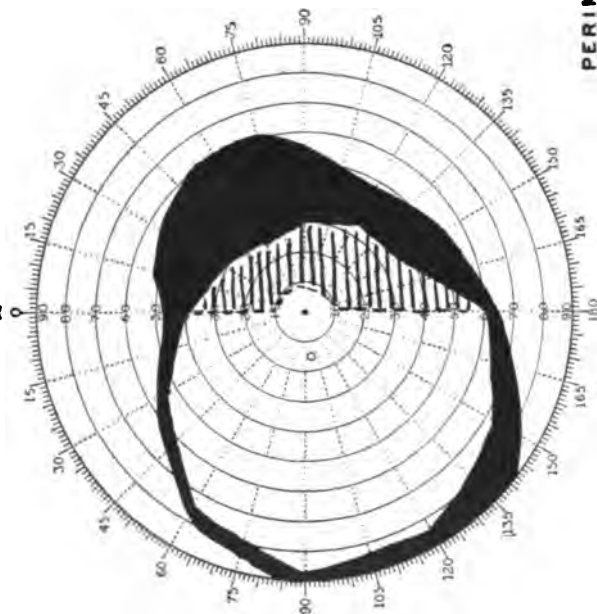
Case No. 1 (J. E.) aet. 36 years. On October 16, 1906, this patient came to the department complaining of severe continuous pains in the right side of his face, causing insomnia. The pains had been present three months, but they had been paroxysmal during the first month. A history was obtained of his having had a chancre twelve years previous but the rest of his history and physical examination was of negative importance. Because of the positive specific history mercuric iodide was prescribed in doses of 1-10 of a grain every three hours. Five days later the patient returned very much improved so the same treatment was continued.

Nothing more was seen of him until March 13, 1907 when he was transferred to the Department from the Medical Division where he had been treated for influenza. The patient then stated that the mercuric iodide had "cured him of his pains" so he had discontinued the treatment. At this time he complained of a very severe constant headache which was much worse at night and caused insomnia. This headache

"Centre each chart with 'pointer' at Zero before commencing to use the Automatic Registration."

LEFT

RIGHT



PERIMETER CHARTS

The acoustic continuous line indicates the average normal field of indirect vision; the small circle the position of the blind spot.

Designed for use with Prof. McHarty's Registering Perimeter.

CHART No. 1.

had been present for several months, progressively growing worse until, during the last two weeks, it was almost unendurable. A history of attacks of transitory diplopia could not be attained because of his lack of comprehension of that condition. Tinnitus and vertigo had annoyed him for two weeks. He stated that at no time was he aware of any muscular weakness. Amnesia was noticed and he complained of difficulty even in remembering the way home.

The patient seemed very dull and listless, sitting quietly with head hanging down, and apparently oblivious to what was going on about him unless sharply questioned. Repetition of questions, many times, was necessary in order to arouse, make him understand and answer.

He seemed to realize the gravity of his condition but didn't appear to worry about it.

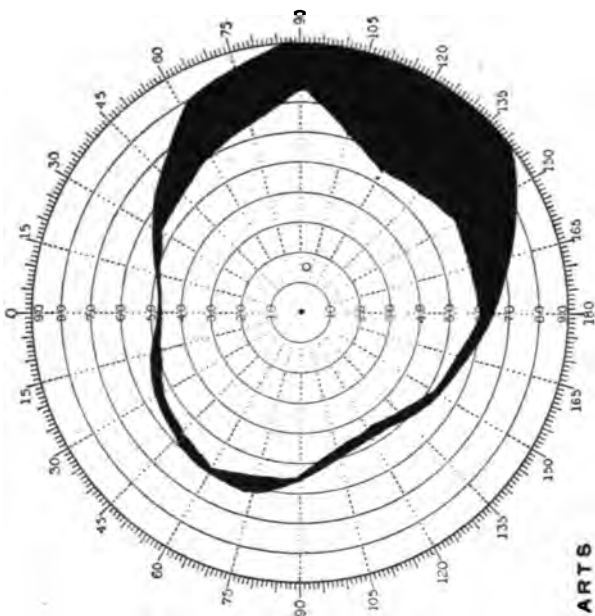
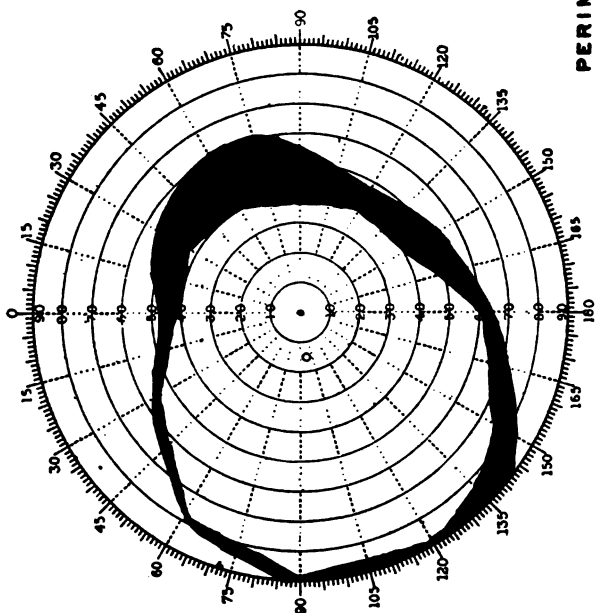
On examination his pupils were found to be equal in size, slightly dilated, but reacting well to light and accommodation and consensually. The external ocular muscles functionated well and without nystagmus. Vision was found to be o. s. 3-50 and o. d. 3-40. Right (field) homonymous hemianopsia was determined by approaching each eye from different directions, with some object because on account of the patient's intellectual deficit, the fields could not be obtained by means of the perimeter. Upon questioning him he stated that for ten days, when walking, he had been running into houses and persons to his right. Through the kindness of the Eye Department of the Dispensary it was determined that the discs were normal in appearance, and that Wernick's test of hemianopic pupillary inaction was negative, showing that the cause of the hemianopsia was posterior to the primary optic centers. There was some reduction in hearing but Rinne's test was negative. The superficial and deep reflexes, coordination and muscular force were found to be normal. The patient stated that he was right handed.

In voluntary speech he used wrong words without knowing that he did so. There was an average of one such mistake in every sentence. An inability was present to name or indicate the use of some ordinary objects held in the hand. He could spell out the letters of a word without being able, with a few exceptions, to pronounce or understand the word for which they stood. When the word pen was shown him he pronounced it book, and when a book and pen were placed before

"Centre each chart with pointer at Zero before commencing to use the Automatic Registration."

LEFT

RIGHT



PERIMETER CHARTS

The concentric continuous line indicates the average normal field of vision. The small circle the position of the blind spot.

Designed for use with Prof. McIlhenny's Registering Perimeter.

CHART No. 2.

him he didn't recognize either of them as what he had spelt or pronounced. He didn't seem to know the name or use of some ordinary objects shown him, and would frequently use the wrong name for them. When asked to write from dictation—"this is a pencil"—he wrote "Pacs," knew he was wrong and gave up in despair. When attempting to copy the word "man," printed in capitals, he wrote in script, "way." "Boy," in print was copied by him in script, "boy," and simultaneously spelled aloud as "bow."

It was noticed that whenever reference was made to his ears he would speak about his eyes, vision and things he saw. Even when his ears were pointed to and a watch was held to his ears, he would say, "I can't see it now, it is too far back," without understanding that he was using the wrong word. He was started on potassium iodide 20 drops tid and mercuric iodide 1-10 grain every three hours and entered in hospital. On March 26 he was discharged from the hospital very much improved, with less paraphasia and with ability to read the newspaper. At this time his hemianopsia was still absolute.

He continued treatment until April 29, at which time his visual fields were almost normal (see Chart No. 2) and he was able to read, write, talk and understand almost as well as before the onset of his attack. The dose of potassium iodide had been increased gradually to 90 drops tid, which seemed to be sufficient in his case.

The lesion in this case was probably a subcortical gumma of the left occipital lobe, causing primarily incomplete subcortical visual aphasia, intercortical sensory aphasia, right (field) homonymous hemianopsia, and astereognosis, and secondarily paraphasia, paragraphia, due to the disturbance of internal language. Intellectual deficit in this case was of moderately high grade. In perimeter chart No. 1 the shaded area indicates approximately the hemianopsia that was present when he first came to the department as determined many times by means of the rough finger test. The blackened area shows the condition of the fields on April 16 as determined by the perimeter. Chart No. 2 made April 24 with the perimeter, indicates the rapidity with which the fields were becoming normal.

Case No. 2. L. G. Aet. 45.

This patient was well until November 5, 1906, when she began to complain of cramps in the right foot and leg. On November 9, 1906, there appeared sudden blindness, causing

her to sit still all day, with apparent improvement in the afternoon. That evening she suddenly lost the use of the right arm, without becoming unconscious or falling. She then walked to her home, several squares away, and went to bed. During the night she fell out of bed and was found the next morning on the floor in a comatose condition. After entering Hahnemann Hospital, on the same day, there was found a typical right hemiplegia.

On fully recovering consciousness the patient seemed intelligent and tried to answer questions, but couldn't form a single word. Internal language did not seem to be disturbed to any great extent, for she understood perfectly what was said to her and carried out simple instructions with her unparalyzed arm. There was progressive improvement until on December 19 she could frame and articulate sentences containing a few words. In naming objects she did so incorrectly but she always knew that she was wrong. On showing her objects she understood their use and could indicate their correct names when a number of different ones were spoken.

It is interesting to note the fact that at no time was the ordinary sign language involved. She was right-handed and had never learned to read or write.

On January 25, 1907, when she was discharged from the hospital, she was beginning to regain the use of her right leg and her speech was greatly improved.

The first investigations on cerebral circulation were conducted independently by Duret in France, and Heubner in Germany. By a peculiar coincidence their results were announced on the same day, the 7th of December, 1872. Their work was done with great exactness, is very complete and, generally speaking, has not been improved upon to the present day. These investigations have shown that the lenticulo striate branches, of the middle cerebral artery, supply the anterior portion of the internal capsule, the basal ganglia and the lenticular zone; and that the external inferior frontal branch of the same artery supplies the posterior portion of the third frontal convolution or Broca's center in the left hemisphere.

The tentative diagnosis in this patient is thrombosis of the external inferior frontal branch and of the lenticulo striate branches of the left middle cerebral artery, with consequent softening involving the internal capsule, the lenticular

zone and the posterior portion of the third frontal convolution. This is arrived at by the history of prodromal symptoms for four days prior to the onset of hemiplegia and the localization by the presence of a complete right hemiplegia, and of aphemia with paraphasia manifesting itself upon the partial return of vocal speech.

As the association tract between Broca's area and the auditory speech center is in the lenticular zone, just beneath the insula and external to the lenticular nucleus, lesions of this zone will cause paraphasia.

This case is an interesting example of the class of patients, frequently encountered, in whom there is the association of aphasia with hemiplegia. Usually these are due to extensive hemorrhage and the aphasia is of a most complicated type.

Case No. 3, Mr. J. H. aet. 61, was referred to the department for confirmation of the diagnosis by his physician, Dr. C. C. Allen.

The son stated that the patient seemed perfectly well until two or three years ago, when he first noticed irritability, indifference, mental confusion, destructive tendencies and amnesia more marked for recent events. At times there was present some confusion of speech. There had been no moral change and he was cleanly in his habits.

The above condition grew progressively worse until July 4, 1907, when, while alone, there developed paraphasia.

The family history was negative, except that his father died of what was diagnosed as abscess of the brain, his mother had a left hemiplegia and one uncle was insane. The patient's personal history showed that he had had an attack of insolation at about his 25th year and that he had indulged in sexual excess, promiscuously, in his youth. He had five children living and well and one daughter suffering from epilepsy. The son was unable to state as to whether his mother had ever had any miscarriages.

Since July 4 the patient's paraphasia has been gradually improving. Upon examination it was found that he could hear and seemed to understand what was said to him; and could read, and at times understand what he read. Intellectual deficit was easily demonstrated. He spoke voluntarily but used the wrong word so frequently that it was difficult to understand him. Incorrect names were applied to objects, but he knew what they were and recognized their use. The power to

write single words voluntarily, to dictation and from copy, was preserved.¹ The entire physical examination was negative, notably the pupillary reflexes, knee jerks and co-ordination.

This patient is undoubtedly one of those in which the onset of paretic dementia is announced by, or succeeded by, transitory or permanent attacks of an epileptiform or apoplectiform nature or less frequently by aphasia. These attacks are generally due to subdural hemorrhages occurring as the result of an associated pachymeningitis interna hæmorrhagica.

The seat of this man's lesion is probably over the insula, as compression of this area could cause paraphasia, by interruption of the subjacent association tract between Broca's center and the auditory speech center. The prognosis of the paraphasia, per se, in this case is good but naturally is grave as far as the underlying condition is concerned. In these cases care should be taken not to confuse for paraphasia the speech disturbances which are part of the symptomatology of paresis.

Case No. 4. A woman, æt. 45, was beaten by her husband, June 14, 1905, and left unconscious on the floor where friends discovered her some hours later. According to them aphasia developed twelve hours after the assault. On June 17, she was brought to the hospital in a comatose condition with a complete right hemiplegia. Following this she never fully recovered consciousness and died June 27 or thirteen days after the assault. Before death the urine showed nephritic changes and the arteries were markedly sclerotic.

At the autopsy minute examination failed to disclose any fracture of the skull, but beneath the intact cerebral membranes of the left hemisphere there was a large blood clot. After hardening the brain the clot was carefully removed and its boundaries noted. Apparently the hemorrhage had originated in the centrum semiovale, just beneath the precentral convolution, lacerating the white matter and the deep gyri and, as it worked its way externally and anteriorly, separating the convolutions without tearing them.

On the surface of the brain it had separated the precentral convolution from the posterior extremities of the first and second frontal convolutions, and extended from within one half inch of the longitudinal fissure to within one inch of the fissure of Sylvius. It measured about $2\frac{1}{2}$ inches in a direction parallel with the fissure of Rolando and $1\frac{1}{2}$ inches across. The cavity that had contained the clot was found to hold a little over two ounces of water.

The diagnosis would seem to be traumatic intracerebral haemorrhage, or apoplexy, in a patient probably predisposed to that condition, as indicated by the results of the urinary analysis and by the presence of marked arterio-sclerosis. It is interesting to note the late development of aphasia, twelve hours, as pointing to the length of time it took for the haemorrhage to work its way externally and anteriorly to the cortex, and there compressing Broca's area. Also the early recovery of consciousness with a lesion as extensive as this.

Case No. 5. On October 10, 1907, at about 12.30 P. M. a man was struck in the left frontal region by an iron bar, without losing consciousness. He was brought to the Hospital and upon examination there was found moderate haemorrhage from the left nostril and total aphemia. There were no lacerations present in the scalp which looked perfectly normal, after the head was shaved, but several apparent depressions could be palpated.

While being examined at about 12.45, there appeared a right sided epileptiform convulsion principally of the arm and face. This lasted a few minutes and was succeeded by unconsciousness, right facial twitching, conjugate deviation of the head and eyes to the right and almost complete paralysis of the right upper and lower extremities. The pulse was 54 and irregular, respiration 24 and axillary temperature 95.5. Before the onset of the convulsion he seemed to understand what was said to him and tried to talk but only inarticulate sounds resulted. When told to stick out his tongue he did so demonstrating that there was no auditory aphasia. Before he could be examined any further for aphasic symptoms the convulsion and unconsciousness intervened.

At one o'clock he was operated by Dr. J. D. Elliott and there was found an extensive depressed and comminuted fracture on the left side extending from the Fissure of Rolando to the border of the orbit and from one inch below the longitudinal sinus to about one inch above the zygoma. The dura was intact and there was no meningeal haemorrhage although several of the fissures crossed the anterior and middle meningeal arteries and their branches.

The depressed fragments of bone were removed and the scalp wound sutured with drainage. Immediately after the operation, when the effects of the anæsthetic had worn off, the paralysis of the right side of the body had disappeared.

In the evening the patient was able to say a few words and the next morning he could talk hesitatingly. His muscular force had entirely returned and his condition was good. Further recovery was uneventful, and he was discharged from the Hospital, October 25, 1907. At this time, and to the present day (January 2, 1908,) he presented no neurological symptoms and examination was negative. Upon questioning him it was discovered that he knows absolutely nothing of events from the time of the accident until four days later. This patient is interesting because of the late development of unconsciousness and paralysis with such an extensive depressed fracture and because of the presence of a total aphemia, due to compression of Broca's center and the insula, which entirely disappeared within a few hours after removal of the depressed bone.

THE MODERN TREATMENT OF PULMONARY TUBERCULOSIS.

BY

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(Read before the Homœopathic Medical Society of the County of Philadelphia, under the auspices of the Philadelphia Society for Clinical Research.)

TUBERCULOSIS is a disease of great antiquity and the earliest records of our race clearly show that man has had to contend with this scourge from the most remote times. Twenty-five centuries ago the illustrious Greek physician, Hippocrates, gave us an excellent description of this malady and added that the most dangerous disease of his day and the one that proved fatal to the greatest number was consumption. And unfortunately, gentlemen, twenty-five centuries of medical experience and of medical progress have been unable to alter the truth of these records which have come down to us from a dark and barbaric past, for each year the world yields up 1,095,000, each day 3,000, and each minute two of its people as a sacrifice to the 'Great White Plague.' Should any other facts be necessary to impress upon our minds the importance of the problem which we are to consider to-night, let me add that according to the statistics furnished by the most expert insurance actuaries in this country there are, in the United States, more

than 1,250,000 persons suffering from tuberculosis, and the annual loss that our Nation suffers as a result of the presence of this disease amounts to \$330,000,000. The prevention and cure of pulmonary tuberculosis is by far the most important problem from a scientific, sociologic and economic standpoint that confronts the medical profession to-day.

THE RELATION OF EARLY DIAGNOSIS TO TREATMENT.

Before taking up more specifically the treatment of pulmonary tuberculosis let me state that the most important factor in securing favorable therapeutic results is the recognition of the disease in its early stage. We may ransack the *materia medica* of all schools and sects, we may have all knowledge of all drugs, of hygiene and of pathology, and yet if we fail to make a correct diagnosis of tuberculosis in its early stage our therapeutic efforts will be attended with great difficulties and our percentage of cures will be small. The relation between early diagnosis and the ultimate results of treatment becomes at once evident when I state that under modern methods we are able to restore to health 75 per cent. of cases of pulmonary tuberculosis in the first stage of the disease, 45 per cent. in the second stage and scarcely 10 per cent. in the third stage.

Without taking your time to go into details on this very important part of our subject I shall indicate in a few words some of the most important signs and symptoms which enable us to make an early diagnosis of phthisis.

A positive diagnosis of pulmonary tuberculosis should be made when anyone of the following conditions is present:

1. The persistent presence of tubercle bacilli in the sputum, provided that no source can be found in the mouth or upper air passage. But right here let me speak a word of warning: never wait until bacilli can be demonstrated in the sputum before making a positive diagnosis of phthisis, for they are usually absent during the first stage of the disease and sometimes can only be demonstrated in the later stages by *thorough and repeated* examinations.
2. Hemoptysis, even to such a small extent as a teaspoonful, if associated with suspicious physical signs or symptoms and a careful examination of the patient reveals no evidence that the blood originated in the upper respiratory passages or that it is dependant upon some other pathological condition.
3. The persistence of localized rales in the apices of the lungs, associated with Krönig's sign of apical contraction.

4. A positive reaction to the tuberculin test. This later method of diagnosis gives us an accurate means of diagnosing phthisis in a very early stage and one that, in experienced hands, is absolutely free from danger.

THE TUBERCULIN TEST.

This test is based upon the fact that persons already infected with the tubercle bacillus react readily to small doses of the toxins of this organism, while in the non-tuberculous much larger doses of the toxins are required to produce a reaction. The reaction appears early in all cases of active tuberculosis and with the exception of leprosy, and possibly of syphilis, can be considered pathognomonic. Unfortunately, it is not a measure suitable for routine practice as there are grave dangers associated with its use in unsuitable cases.

The indication for the use of tuberculin are suspected cases of pulmonary or other localized forms of tuberculosis in which we are unable to arrive at a positive opinion from the clinical history, and careful physical and bacteriological examinations.

The use of tuberculin is contraindicated in all cases of generalized tuberculosis, in cases with extensive lesions or with a maximum temperature of over 99.5 degrees.

It is, therefore, to be regarded as a special means of diagnosis in incipient or difficult cases when other means of diagnosis are indeterminate. No physician who is incapable of making a thorough physical examination of the lungs is competent to use tuberculin.

TECHNIQUE OF THE TUBERCULIN TEST.

In making the tuberculin test I employ the following method: The patient's temperature is taken every three hours for three days prior to injecting the tuberculin in order to determine whether there is any elevation of temperature. At the end of the third day, preferably in the evening, the first injection is given. For diagnostic purposes we always employ Koch's "old" tuberculin. In order to avoid the possibility of a severe reaction, our first dose should be 0.001 c.c. of crude tuberculin for an adult and half this dose for a child. The tuberculin is diluted with sterile water or a 0.5 per cent. solution of carbolic acid and injected hypodermatically. Following the injection the temperature should be taken every two

hours. The patient should be kept in bed or at least should avoid any exertion. A reaction usually occurs within twenty-four or thirty-six hours. It is generally evinced by a rise of temperature of from one to three degrees (see figures I and II), associated with headache and malaise. More rarely there

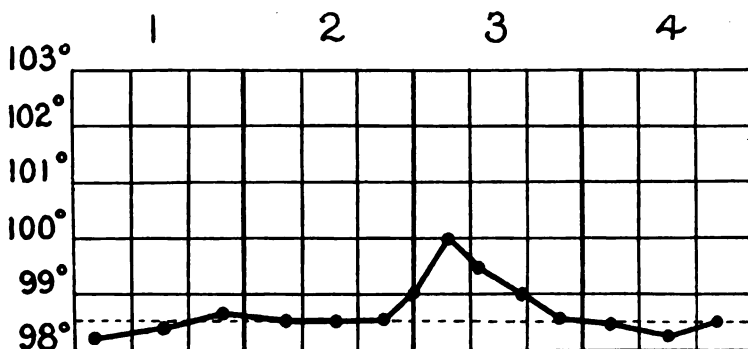


FIG. I. REACTION FOLLOWING INJECTION OF 0.001 C.C. OF TUBERCULIN.

is no rise of temperature but an inflammatory reaction at the seat of the injection. In some instances fine moist rales develop around the tuberculous focus in the lungs.

If no reaction follows the first injection we wait three days and then inject 0.002 c.c. of crude tuberculin. If the result is still negative at the end of three more days we inject 0.005 c. c.

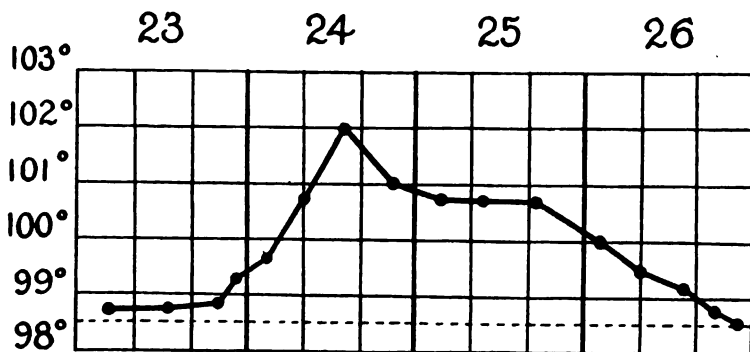


FIG. II. REACTION FOLLOWING INJECTION OF 0.005 C.C. OF TUBERCULIN.

If no reaction follows this dose we are safe in concluding that the patient is free from any active tuberculous process.

Figures I and II are examples of typical reactions to the tuberculin test in cases of incipient phthisis.

SYSTEMATIC TREATMENT.

The systematic treatment of tuberculosis can be advantageously considered under the following headings:

1. Constant medical supervision of every detail of the patient's life.
2. An abundant supply of fresh air day and night.
3. Diet.
4. Rest and exercise.
5. The use of physical agents, such as hydrotherapy, massage, electricity, etc.
6. The use of medicinal agents.
7. The use of specific serums or bacterial products.

I. CONSTANT MEDICAL SUPERVISION.

This is a feature of the treatment that is usually overlooked by the patient, especially if the disease is not far advanced, and one that is not insisted upon by physicians as strongly as it ought to be. Solly in Colorado, Latham in England and other investigators, have found that even under the most favorable conditions of climate, food, etc., tuberculous patients who were not under adequate medical supervision did not progress as rapidly as they should and the percentage of cures in patients who thus cared for themselves was much smaller than in similar cases under proper supervision. The course of a chronic case of pulmonary tuberculosis is an ever-changing one, and no one can tell what a day may bring forth. To steer the patient among these many pitfalls, to so direct him that he may avoid those things which are harmful and take advantage of all favorable circumstances, to encourage him in days of depression and to urge him on to better endeavor in days of improvement, these are a few of the duties of the physician, not to mention the aid which he may give by the judicious selection of remedial drugs.

2. AN ABUNDANT SUPPLY OF FRESH AIR DAY AND NIGHT.

The beneficial effect of fresh air in the treatment of tuberculosis has been so well established that I shall devote but few words to this subject. Allow me to emphasize the fact that our aim should be to get the patient in the open air as large a part of the twenty-four hours as possible in every case. A

few weeks in the open air will do more to stimulate the appetite, to reduce the fever and to ameliorate the cough of the average consumptive than all the drugs in our pharmacopœia. The patient should be kept out of doors, properly protected, during all seasons of the year. In fact the best results from treatment are usually obtained during the cold months of the year. Fine weather, while desirable, is by no means necessary, for if this were the case the splendid results obtained in the Black Forest, at the Nordrack Colonie and by Josselin de Jong in the low lying districts of Holland would never have been chronicled. Where circumstances render it impossible for a patient to be treated in the open air, porches, verandas or roofs may be utilized for carrying out the treatment. Rooms are seldom satisfactory, owing to the difficulty of securing sufficient change of air without creating undesirable draughts. Knopf, of New York, has devised an inexpensive window tent for use in an ordinary room, which adds greatly to the effectiveness of the home treatment.

3. DIET.

As a general rule our aim should be to administer an abundance of nourishing food containing a large proportion of proteids and fats to be taken in sufficient quantity to restore and maintain the normal body weight.

In carrying out this method of hypernutrition there are certain details which must be carefully watched. In the first place, while we aim to give these patients a large amount of nutrition daily, we must not forget that we get a greater amount of absorption from a moderate than from an excessive quantity of food. Dilation of the stomach is another complication which we must be on our guard against. I have seen this occur in a number of patients who were taking large quantities of milk daily. Where such a tendency exists a dry diet must be instituted and the quantity of fluid ingested daily limited to three pints.

As regards the frequency of feeding there is a decided difference of opinion. Some authorities advise giving three large meals daily with no food between meals. By following this method it is claimed the stomach gets a needed rest. The following diet list devised by Latham is a typical example of the three meal system.

DIET LIST (Latham.)

8.00 A. M. Breakfast.	{ Coffee. Bread and butter—large quantity. Eggs. Meat. Milk—1 pint.
1.00 P. M. Dinner.	{ Meat—2 courses. Potatoes. Rice. Abundance of fat-containing sauces. Pudding. Milk—1 pint.
7.00 P. M. Supper.	{ Hot meat. Potatoes. Green vegetables. Bread and butter. Cheese. Milk.

While this system may have certain theoretical advantages to recommend it, I am satisfied that the practical results from its use do not compare with the plan of giving smaller meals at shorter intervals. The system of diet which has given the best practical results in my experience in the average case is as follows:

DIET LIST (Author's.)

Basis.	{ Milk—2 quarts=1300 Calories. Eggs, raw—6 = 480 " Total1780 Calories.
7.00 A. M.	{ Milk—1 pint. Eggs—2. Crackers or toast.
9.00 A. M. Breakfast.	{ Fruit. Cereal food. Bread and butter. Meat. Milk with cocoa—½ pint
1.00 P. M. Dinner.	{ Soup. Meat. Vegetables. Bread and butter. Salad. Dessert. Milk—½ pint.
4.00 P. M.	{ Milk—1 pint. Eggs—2. Crackers.

6.30 P. M.	{	Cold meat.
Supper.		Bread and butter.
		Jelly.
		Baked potato.
		Milk with cocoa— $\frac{1}{2}$ pint.
9.00 P. M.	{	Hot milk— $\frac{1}{2}$ pint.
		Eggs—2.
		Crackers or toast.

What I have termed the basis of the diet, it will be observed, consists of two quarts of milk and six raw eggs daily. This furnishes almost eighteen hundred calories of energy which is approximately the amount required to meet the needs of an adult at rest. All the nourishment which the patient can assimilate beyond this point furnishes a surplus of energy that may aid in the production of an immunity to the tubercle bacilli and their toxins, or may be stored up as a reserve supply in the body in the form of increased flesh. I insist that the patient shall take the basal diet daily, unless there is some definite reason why a deviation from the routine should be permitted. In addition to the basal diet the patient is permitted to eat as much food as he can digest, and it is well to provide, as far as possible, such articles of diet as are agreeable to him, provided they are not of a harmful nature. I urge all patients to eat some fresh fruit or fruit juice at least once daily, and encourage the use of meats and fats (the latter in the form of butter and olive oil, either plain or in the form of salad dressings).

In patients who are much emaciated and whose digestive powers are feeble, a valuable adjunct to the diet will be found in daily inunctions of olive oil, twenty-five parts, and cocoa-butter seventy-five parts. I also apply in such cases a compress of two layers of flannel soaked in olive oil (cotton-seed oil will serve the purpose if the patient's means are limited) covering the entire abdomen. This compress is held in place by a binder and allowed to remain on the abdomen all night. Quite considerable fat may be absorbed in this way, without disturbing the digestive functions.

An important item in the feeding of tubercular patients is the preservation of the appetite. Any drug that disorders the stomach and destroys the appetite of a tubercular patient is worse than useless, and should not be prescribed. The food should never be cooked where the patient can smell it. Cleanliness of the mouth is essential to the preservation of the ap-

petite. The teeth should be thoroughly cleansed with a brush and powder every night and morning. After each meal the mouth should be washed out with the following solution:

℞ Alcohol
Glycerine
Water aa f ʒ i
Essen. Peppermint gtts iii.

M. Sig. Use as mouth wash after each meal.

The use of fresh fruits, such as pineapple, orange, grape fruit, grapes, etc., as above referred to tend to improve the appetite and exert a beneficial effect on nutrition.

4. REST AND EXERCISE.

It is frequently a difficult, as well as an exceedingly important question, to decide whether a patient should be kept at rest or permitted to exercise. To quote from a former article in which I expressed my views on this subject*:

"Where the tubercular process is in an active stage and accompanied by a high pulse rate, and a maximum temperature of over 100 degrees F. the patient should be kept at rest. Too prolonged rest, however, tends to impair the vitality of the individual, to enfeeble the circulation and to retard the progress of the recovery. On this account, as Brehmer has wisely pointed out, as soon as the quiescent stage has been reached and the patient's condition will permit, some form of exercise should be instituted. The character and the amount of the exercise must be adapted to the needs of the individual case. In feeble patients we must begin with massage and passive movements. Later the patient should be gotten out of bed and allowed to walk a few yards, gradually increasing the length of the walk as recovery progresses. Where the patient's strength will permit, the most valuable measure which we have at our command for increasing the power of the heart and toning up the circulation is graduated hill climbing. I am fully aware of the fact that this procedure is capable of working great harm in unsuitable cases, but am quite as sure also that when judiciously carried out in selected cases it exerts a most beneficial action in hastening recovery after the active stage of the disease has been controlled by rest and other measures.

*The Circulatory Phenomena of Pulmonary Tuberculosis and their Relation to Diagnosis and Treatment.—THE HAHNEMANNIAN MONTHLY, July, 1907.

"Our best guides as to the effect of exercise are the condition of the pulse and temperature. *If the exercise directed causes a rise of temperature of more than 100 F. and an increase in the pulse rate which remains over one hundred after the patient has rested a half-hour, the exercise is too vigorous and must be diminished or discontinued.* Another condition which must be carefully guarded against in a patient taking exercise is overfatigue. Should signs of this appear at any time the patient must rest at once or irreparable damage may be done. In cases where the effects of exercise are beneficial, we find it evidenced by a gradual increase in the power of the heart, improved arterial tension and a general increase in bodily vigor. Under such circumstances it should be gradually increased as the condition of the patient improves. It may be stated as a general rule that there is more danger from over-exercise than from too little."

5. THE USE OF PHYSICAL AGENTS.

There are several physical measures which may be advantageously employed in the treatment of tuberculous patients. The most important of these are hydrotherapy, massage, electric light baths and the X-rays.

Hydrotherapy. Every tubercular patient should have a bath daily to stimulate the circulation and to keep the skin in a normal condition. If the patient is confined to bed a sponge bath at a temperature of about seventy degrees should be employed. This should be followed by brisk rubbing with a coarse towel by the nurse. If the patient is ambulant a shower bath is usually preferable. Cold plunge baths are rarely advisable. Cool baths are always contraindicated if the patient is subject to attacks of hemoptysis.

Massage. This may be advantageously used in all cases that are at rest a large part of the time. Massage with cocoa butter and olive oil in patients much reduced in weight has been previously referred to.

The Electric Light and the X-rays. These two forms of electric energy have attracted considerable interest in the treatment of tuberculosis during the last five years. My own experience has been confined to the use of the 500 candle-power electric light rayed over the chest and trunk. The lamp should be held sufficiently close to the patient to produce a marked glow in the skin. Each sitting should last fifteen to twenty

minutes and should be repeated every day or every second day. I regard it as a useful adjuvant to the general treatment of tuberculosis.

The X-rays exercise no specific action on the tubercle bacilli in the lungs, but according to some writers, exert a beneficial influence upon nutrition. Good results have been reported from their use, but they have received no general recognition of value in this connection.

6. THE USE OF MEDICINAL AGENTS.

There seems to be a great deal of confusion in the medical profession in regard to the use of drugs in the treatment of tuberculosis. Some physicians rely on drugs alone and expect them to accomplish impossibilities, while others say there is no drug that will cure tuberculosis and therefore let us "throw physic to the dogs." Both of these positions are radically wrong. To rely upon drugs alone in the treatment of tuberculosis is a travesty upon therapeutics and a mockery of the experience of the past twenty-five centuries. On the other hand to say that drugs have no value in the treatment of this disease is to deny that they are of value in the treatment of any disease whatever, for if we cannot by properly selected remedial agents improve the digestive powers of the tuberculous patient, if we cannot strengthen his circulatory powers, if we cannot ameliorate his cough and ease his distress, how can we claim to accomplish similar results in any other diseased condition? This therapeutic scepticism has, to a large extent, grown out of the evil results attendant upon the administration of large doses of toxic drugs by certain members of the medical profession in the search for a specific or in the vain attempt to "kill the germs."

I shall not take up your time in reciting all the drugs which may be advantageously employed in the treatment of tuberculosis. The most important fact for the prescriber to bear in mind is that there is no specific drug for the cure of this disease. All rational prescribing must be based upon the symptoms and pathological conditions present in the individual case and a remedy which might be administered with the greatest benefit in one instance would be positively prejudicial in another. The importance of strict individualization in prescribing for tubercular patients is now being recognized by the practitioners of every school of medicine, and as an emi-

nent writer in an address before the American Medical Association recently said: "It must be evident that no specific against the exciting causes of the disease or against any of its morbid processes is to be looked for." Let us not be led away from the paths of rational therapeutics to pursue the elusive "specific." The pages of medical literature contains hundreds of them, remembered now only as examples of the folly of their originators. One by one they have been relegated to the medical dump heap, from the infusion of wolf's liver, which Pliny tells us attained a great reputation in his day, down to the modern practice of administering large doses of antiseptics for the purpose of destroying the bacteria in the tissues, with the result, as Latham remarked in his Harveian lecture, that "the patient rather than the bacillus succumbs."

HOMOEOPATHIC THERAPEUTICS.

In selecting a homoeopathic remedy for a patient suffering from pulmonary tuberculosis the individual peculiarities of the patient and the constitutional symptoms must be given careful consideration. This is especially true in the early stage of the disease when local symptoms are few and not clearly defined. From time to time it may be necessary to change the remedy on account of the development of dangerous or distressing symptoms that demand immediate attention. It should be a general rule, however, when once having studied the constitutional conditions carefully, and having selected the indicated remedy in accordance with them, not to change the remedy with every new symptom that arises, but continue its use until we have ample opportunity to observe whether its action is beneficial or otherwise.

Constitutional Remedies for the First Stage. Among the remedies most frequently indicated during this stage are: Ars., ars. iod., calc. carb., calc. phos., calc. iod., china, ferr. met., ferr. iod., iodine, nux vom., phos., strychn. and sulph.

Constitutional Remedies in the Later Stages. As the disease progresses we find indications for a class of remedies related to the more profound changes in nutrition and to the hectic type of fever. Remedies of this type include: Antim. iod., ars., ars. iod., baptis., bry., chin. ars., hepar sulph., iodine, natr. sulph., phos., puls., stannum, silicea and sulph.

Remedies for Chest Symptoms. In cases where the chest

symptoms, such as cough, pains in the chest, expectoration, etc., are predominant, the following remedies must be studied: Acon., antim. iod. and tart., bell., bry., ferr., phos., hepar sulph., ipecac, kali bich., phos., stannum, sang. and rumex.

Arsenicum. This remedy is well adapted to cases associated with marked anemia and weakness. A septic type of fever is often present. The cough is associated with dyspnea and is worse in the evening when lying down. Hemoptysis may be present. The patient is thirsty and vomits easily, especially after eating or drinking. Emaciation is progressive and the changes in nutrition are of a profound character.

Ars. Iod. This is one of the most generally useful remedies in the treatment of pulmonary tuberculosis. It meets well the symptoms so commonly met with in the first stage of the disease, namely, the loss of appetite, beginning anemia and feeling of lassitude. The fever is of a low type, rarely exceeding 101 degrees. The cough is short and associated with muco-purulent expectoration. It is worse at night and early in the morning. The pulse is rapid and of low tension, and the patient often complains of the hands and feet being cold. I prefer to employ the remedy in the second or third trituration.

Baptisia. This remedy is suited for the more advanced stages of tuberculosis, after a secondary infection has occurred and the septic type of fever developed. The fever is characterized by marked remissions, and chilliness in common. The patient perspires readily, especially at night, the sweat having a foul odor. Prostration and emaciation are pronounced. The tongue is dry and parched, and diarrhœa is common.

Calc. Carb. This remedy is chiefly employed for its constitutional effects and should always be thought of in the early stage of phthisis or in young persons having tubercular tendencies. These individuals are usually of light complexion, their flesh is fat but soft. The teeth and bones are not well developed and the digestive powers are poor. Dyspeptic symptoms are invariably present, such as sour eructations, worse after eating fat foods and a tendency to diarrhœa.

Calc. Phos. Useful in much the same class of cases as calc. carb.; the chief differentiating feature between the two remedies is the constitutional make-up of the patient, the calc. phos. patient being thin, emaciated and dark complexioned.

Ferr. Phos. Should be thought of in the early stage when

there is present a dry spasmodic cough worse on going out in the open air. Anemia is present and the sputum is often tinged with blood.

Nux. Vom. This drug has been much neglected in the treatment of tuberculosis. In my experience it is the most valuable single remedy we possess in the early stage of the disease. It is well suited to the digestive disturbances, the loss of vascular and nerve tone, and the failure of nutrition that are characteristic of early tuberculosis. The chest symptoms are not prominent where *Nux* is indicated, but the patient may have a dry cough with a sensation of tickling in the larynx, worse after midnight and in the early morning. The constitutional symptoms are more important. The appetite is poor, there are sour eructations from the stomach, coated tongue and constipation. The patient is always tired and complains of weakness even in the morning on awakening. It is especially indicated where the tubercular process has been brought on by close confinement to work or by profligate living. I usually employ the remedy in the 2x trituration and prefer to give it before meals and at bed-time. In cases with complete loss of appetite and distaste for food, from five to fifteen drops of the tincture in a little water given fifteen minutes before the meal will improve the appetite and stimulate the digestive functions.

Phosphorus. By some writers this remedy is considered the "king of remedies for phthisis." My own observation does not confirm this view and I have been frequently disappointed in its use. It is a remedy which is capable of doing a great deal of harm if indiscriminately used and the practice of giving it as a routine remedy in every case of tuberculosis cannot be too strongly condemned. Both *ars.* and *nux. vom.*, in my observation, are remedies of wider applicability and usefulness, especially in the early stages of the disease. The special symptoms calling for phosphorus are a short, dry cough, associated with shortness of breath and white or blood-streaked sputum. A sensation of oppression or tightness across the chest is present and the patient feels as though it were difficult to draw a long breath. The cheeks are usually flushed, hectic fever is present and emaciation is marked. The typical phosphorus patient is tall, slender and distinguished by his intellectual, rather than by his physical development.

Stannum. This remedy is indicated in cases with profuse

mucous or muco-purulent sputum. Later the sputum may be of a greenish color and have a sweetish taste. There may be pain in the chest and the patient usually complains of a feeling of weakness after expectorating. Hoarseness is common, night-sweats and hectic fever, together with great lassitude are usually complained of. Many writers prefer to use the iodide of stannum in cases where stannum is indicated.

PHYSIOLOGICAL THERAPEUTICS.

Strychnia. Among the drugs which are prescribed on a more or less empirical basis, the most valuable in my observation is strychnia. When properly used it improves the appetite, stimulates nutrition, strengthens the power of the heart and deepens respiration. It is, therefore, suited to patients having a poor appetite, low blood pressure and general weakness. In such cases the proper dose is 1-50 or 1-100 gr. three times a day. It is not advisable to continue its use over a longer period than three weeks at a time.

Creasote and Allied Substances. Creasote, guaiacol, carbolic acid, etc., constitute a group of remedies which have been extensively employed as remedies in tuberculosis. In fact our old-school friends for many years exploited creasote as a specific cure for this disease. When administered in maximum doses for the purpose of destroying the bacilli in the diseased tissues, this drug is not only useless, but by interfering with the digestive functions, positively prejudicial to the patient's recovery. Under proper conditions, however, creasote, in a modified form, may be of value on account of its stimulating effect on the gastric and nutritive functions when used in small or moderate doses. It is most useful in cases of gastric irritability and vomiting, associated with marked bronchial symptoms. I prefer to use the carbonate of creasote in doses of ten to fifteen drops three times a day, as it is free from the irritating effects of the crude creasote. The drug is best administered in hot milk about one hour after meals.

Iodiform is another remedy which has been vaunted from time to time as a true specific for tuberculosis. My personal experiences with it in material doses have been very disappointing. It frequently causes unpleasant regurgitations into the mouth, destroys the patient's sense of taste and interferes with the appetite and the digestive functions. Dr. Arthur Hartley informs me that he has had gratifying results from

its use in 1-10 gr. doses three times a day. I believe its use should be restricted to small doses, or the drug omitted altogether.

Arsenic is a remedy which has attained a favorable reputation from purely empirical use in physiological doses. Most old-school writers agree that it is only adapted to a selected type of cases, but just how the therapist is to recognize the type to which it is suited they fail to tell us. Fortunately the principle of similars gives us an accurate method of determining the class of cases to which arsenic is suited and by far the best results are obtained from the employment of this remedy in potentised form, on its well-known homœopathic indications.

This practically exhausts the remedies from empirical sources that have attained any general recognition in the treatment of tuberculosis, unless we include iron, quinine, the hypophosphites, the bitter tonics and other remedies of similar character which are supposed to stimulate the appetite and nutrition. They, of course, have no specific relation to the disease, and though at times valuable in special cases, are not of any material importance in the management of these cases.

The drugs so often prescribed as palliatives of the cough, such as morphine, codeine, heroin and other derivatives of opium, cannot be too strongly condemned as routine remedies. They cannot be considered as curative in any sense, and their administration should be reserved merely for those cases in the last stage of the disease, or where exhaustion from violent coughing renders their temporary use expedient for a short time.

Cod Liver Oil, the remedy par excellence of a decade ago, is now regarded merely as a convenient form of administering fat, and has no medicinal properties worthy of consideration. Its use has largely been superseded by olive oil, butter, cream or other forms of fat which are devoid of its nauseating and disagreeable features.

INHALANTS.

To the superficial observer the most rational means of treating tuberculosis of the lungs would be by the use of inhalants. Nothing would seem more simple than to permit the patient to inhale some strong antiseptic that would pass into the lungs and destroy the tubercle bacilli. The results of patholo-

gical and clinical research demonstrate, however, that the antiseptic, alas, never reaches the offending organisms for which it was intended, and that the principal result of inhalation of such fumes is to irritate the mucous membrane of the bronchial tubes and aggravate the existing bronchitis. For this reason the inhalation of irritating gases, such as formaldehyde, the vapors of iodine, etc., have been abandoned.

There is a class of remedies however, namely, soothing balsams and oils, that serve a useful purpose in the treatment of the accompanying cough and bronchitis. While they possess little or no value as antiseptics, they exert a soothing influence on the mucous membrane of the respiratory tract and materially relieve distressing coughs in many instances. The preparation which has given the best results in my experience is the following:

℞ Beechwood creasote
Eucalyptol
Chloroform
Alcohol, aa 1 ounce

Sig. use as an inhalant three times a day.

This preparation is best employed by the use of the perforated zinc inhaler, designed by Dr. Burney Yeo. Fifteen drops are placed on the inhaler every fifteen minutes. The inhalation should be continued for one hour, three times a day.

TREATMENT BY SPECIFIC SERUMS AND TUBERCULIN.

Repeated efforts have been made to produce an anti-tuberculosis serum or vaccine. Maragliano extracted highly toxic bodies from the living bacilli and injected them into horses and asses. He claimed that the serum of animals thus injected has antitoxic and antibacterial qualities when administered to tuberculous individuals. His reports were not confirmed by other investigators and his serum is not employed for clinical purposes.

The most important serum of late years is that made by Marmorek. He grows virulent bacilli on a special medium and injects the toxin thus formed into horses. The dose is gradually increased until an immunity to the toxin is established. The serum of such animals, Marmorek claims, is a true tubercular antitoxin. A number of good results have been reported from its use, but its true value is yet to be determined. The same may be said of von Behring's serum.

Tuberculin, as a therapeutic agent, has been steadily growing in favor during the past five years. It is to-day being extensively used by a large number of clinicians all over the world. It finds its greatest field of usefulness in all forms of localized tuberculosis, whether of the lungs, the lymphatic glands, the bones, localized abscesses, etc. The disastrous results which followed the use of tuberculin as originally advocated by Koch, have been entirely excluded, now that we have a clearer understanding of the indications and contraindications for the use of this agent, and since we have learned the greater efficacy of its use in minute doses. It is important to bear in mind that the use of tuberculin does not replace the general hygienic and dietetic methods of treatment, but is to be regarded merely as an adjuvant to them. The most reliable statistics show that where tuberculin is used in connection with such treatment, the percentage of cure is about 20 per cent. higher than in cases receiving the usual sanatorium treatment alone. It is also held that there is less likelihood of recurrence where tuberculin is employed.

Tuberculin is indicated in incipient or slowly progressive cases of pulmonary tuberculosis, in which the maximum temperature does not exceed 100 degrees and in which there is no systemic infection. It is contraindicated in cases with systemic infection, high temperature or rapidly advancing lesions.

The Administration of Tuberculin. In using tuberculin for therapeutic purposes I prefer to employ either Deny's bouillon filtrate or Koch's "new" tuberculin. In either case we dilute the crude tuberculin with sterile water until we get a dilution of one part of tuberculin in one million parts of water. This corresponds to our sixth decimal dilution. We inject one-tenth of a c. c. of this dilution as the first dose, representing 1-10,000 of a milligram of crude tuberculin. If no reaction follows this injection we increase the dose very gradually in order to avoid any decided constitutional disturbances. Trudeau, Riviere and other clinicians who have had most experience with this agent, lay great stress upon the danger of rapidly increasing the dose, as the immunity is produced only very gradually, and if a marked aggravation should be produced by too large a dose it is very difficult to continue the treatment. The injections should be made about once a week, being discontinued temporarily when there is an aggravation

of the patient's symptoms from any cause. In favorable cases the tolerance to the tuberculin is gradually increased and the symptoms improve. In such cases the injections should be continued for from six to twelve months, but the maximum dose of tuberculin should never exceed 1-20 of a milligram. If there is no improvement at the end of three months, the injections should be discontinued. In making the injections an ordinary hypodermic needle should be used with the usual aseptic precautions. The injections are made below the scapula or on the outer side of the arm.

Potentized Tuberculin has been employed to a limited extent by homœopathic physicians for a number of years, and good results have been reported. The remedy has usually been used in the 200th potency. The symptoms calling for its use, according to Rabe, are somewhat similar to those of *Pulsatilla*. A striking feature is the desire of the patient to be in the open air. There is cough, sweats and hectic fever. All of these symptoms are worse at night and in a warm room. The expectoration is yellow or greenish. The appetite is poor and emaciation is usually present.

My own experience with tuberculin in this form has been very limited. At the present time I am having prepared some of Deny's bouillon filtrate (which contains no tubercle bacilli) in the sixth and twelfth decimal dilutions and feel that its oral administration in this form is well worth a trial. Dr. C. S. Raue informs me that he is experimenting with "new" tuberculin in potency. The oral administration of tuberculin would have many advantages over the hypodermic method, both to the physician and to the patient, provided the effectiveness of the remedy is not impaired by the digestive processes.

TUBERCULODERMATA: MANIFESTATIONS, DIAGNOSTICS AND TREATMENT METHODS.

BY

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(Read before The Clinical Society of the West Philadelphia General Hospital and Dispensary as a part of the "Symposium on Tuberculosis," being conducted by said Society and published under the auspices of the same. Nov. 1st, 1907.)

MR. PRESIDENT, MEMBERS AND GUESTS OF THIS SOCIETY:—

It is my pleasure at this time, to continue "The Symposium on Tuberculosis," presenting to you, the dermatologic affections. Much has been said and written upon this topic, during the past few years, which is of interest and worthy of note. I have given the general term of *Tuberculoderma*, to these tubercular manifestations, whether definitely tuberculous in nature or whether para-tubercular in character. By the term definitely tuberculous I refer to those conditions in which the tubercle bacilli, can be definitely demonstrated; either by the aid of the microscope, or by the results of injections into the guinea pig. By the term para-tubercular, I refer to such conditions, which are the results of the presence of tuberculous toxins in the blood, and in which no tubercle bacilli can be demonstrated. Under the definitely tuberculous skin affections, I shall consider first *Lupus Vulgaris* which is the most frequent form and most typical, including the clinical form, known as *lupus verrucosus*, or *tuberculosis verrucosa cutis*. Secondly, I shall consider, *miliary tuberculosis*; thirdly, *erythema induratum* of Bazin, and lastly, *scrofuloderma*. Under the para-tubercular affections, I shall consider, *folliculitis*, and *acnitis*, *acne scrofulosorum*, and finally, *lichen scrofulosorum*. Permit me, if you will, to begin my general discussion with a few words on the causal factors which are responsible for tuberculous dermatologic affections.

It is a well known fact that tuberculosis may develop locally, being the result of direct inoculation. This being vouched for by Gilchrist of Baltimore, who reports a case of primary tuberculosis of the sole of the foot; the diagnosis being confirmed by the finding of the tubercle bacilli microscopically. He re-

ports another case in which the patient has tuberculosis of the back of the right hand, beginning from a scratch mark. The patient having worked at the same bench with a consumptive, while the former patient lived in the home of a consumptive who expectorated upon the floor. The patient having the affection upon the sole of his foot, frequently going barefooted. Babes in the *Presse Medicale*, gives the results of his experiments of rubbing pure cultures of tubercle bacilli into the skin of guinea pigs. In some cases the skin was shaved, while in others the hair was merely cut away. The bacilli penetrated into the shaved skin with readiness, and in some of the cases, where the hair had merely been cut off. Lassar, that eminent German Dermatologist, in his recent oration before the Dermatological Society of Great Britain and Ireland, states that he found three per cent. of the employees of one of the slaughter houses of Berlin, affected with tuberculosis of the skin. The most of these affected, were employed in the inspection of tuberculous meat, especially those engaged in doing microscopic work. All of them were stout robust men, in the best of health, with no manifestations of tuberculosis elsewhere; the skin lesions being slight. Lassar explains this by the fact that, predisposition did not exist, and that man is not inclined to get infected with bovine tuberculosis. The virulence of the germs is diminished after death; being unusually active, only in the living circulation. There are furthermore, many cases on record, which clearly demonstrate the direct inoculation of cutaneous tuberculosis. There are however, other ways in which tuberculodermata may arise; for instance, by extension from deeper tubercular foci, or by transmission through the veins or lymphatics, then again, through the blood, and lastly in utero. It must be remembered that about one third of those affected, give a tuberculous family history, while tuberculosis in other parts, is occasionally seen. Individual resistance plays an important role, in the progress of the disease. In those who are robust and without predisposition, there is little tendency, for progress, and usually goes on slowly, without suppurative lesions. In those of the strumous diathesis, and who are apt to be cachectic, the lesions, develop more rapidly and are apt to be destructive and ulcerative.

I shall now take up the consideration of *lupus vulgaris* with you. That *lupus* is more or less rare in this country, we all

agree. It is common, however, in Great Britain and Europe. Usually, about two-thirds of the cases are to be seen in women. The poorer classes, and those surrounded with unhygienic surroundings, are usually the most susceptible, although no class is exempt. Lupus usually begins in childhood, and has been seen, beginning as late as the sixty-third year. About seventy-five per cent. of children affected, usually have the beginning lesions, at the edge of the nose or upon other portions of the face. This is explainable, because children frequently have the habit of picking their noses, and where there is tuberculosis present in the family, one can readily see how such a tuberculoderm can be transmitted, for children are forever having their finger nails in mourning, carrying many thousands of germs beneath them.

Lupus begins as a small flat papule, deeply imbedded in the skin. It varies in size from that of a pin point to that of a small pea. It is brownish red or yellowish in color, and according to Hutchinson has that characteristic, apple jelly appearance. Many of these initial papules, often appear, as the beginning lesion, of lupus. Growing slowly, but surely, and definitely. It is after a few of these papules have definitely established themselves, that they take on the apple jelly like appearance; they are softer than the surrounding skin in which they seem to be imbedded. In time these papules tend to enlarge, and either break down into ulcerating masses, or they undergo fatty degeneration and are absorbed without ulceration. If there is a tendency for ulceration, they break down with the formation of ulcers, which are round or irregular, with flat, flabby borders, and indolent red granulating bases. Purulent secretion occurs, usually drying into dirty yellowish greenish crusts. White scarring, is characteristic and where the lesions are quite superficial, the scars are very thin, while in the deeper lesions, scarring is quite thick and dense.

The most frequent location of this disease is upon the face, especially upon the nose, cheeks and ears, although no part of the body is exempt even attacking the mucus membrane of the nose and mouth. The disease is practically a painless one without constitutional symptoms and gives rise to various pictures, in its coalescence and configuration.

Occasionally lupus may present itself as discrete tubercles, on an inflammatory base, which is dull red, and which may show slight ulcerations. Again it may present itself as groups

of discrete tubercles, distributed upon different parts of the body; then this condition is known as discrete or disseminated lupus. Then again lupus may take on a hypertrophic form, in which the nodules present themselves, about the borders of the lesions, as hard firm, brownish nodules. The center of the lesion, tends to remain soft, which may undergo involution, or there may be a tendency for the nodules to enlarge and produce a decided tumor like appearance. Occasionally, secondary infection of lupus lesions, takes place, with the formation of exuberant granulations, with the production of papillomatous lesions, which may be dry or suppurating. Lupus as well presents itself in serpiginous outline, and as well in anular outline. It must be remembered that scaling is a definite characteristic feature of lupus tubercles, and that there is a variety which closely resembles lupus erythematosus, which is an entirely different entity, and which does not have the characteristic apple jelly like tubercles present.

Occasionally lupus will undergo fibroid thickening; the tubercles becoming hard and resistant, with decided enlargement of the part affected. I have at present a case under treatment, in the skin department, of our hospital which shows, this excessive connective tissue formation, and had intended having the patient here for your inspection, but unfortunately the patient is a commercial traveler and had to leave town. I shall hope however to be able to show him to you at another time, as his case is an unusually interesting one. Usually lupus is very slow in its progress, but occasionally however, it may take an acute form, spreading with great rapidity, and associated with rapid tissue destruction. So much then for a description of lupus. Diagnosis from allied conditions, would next naturally interest us. I shall give a few of the more important points of differentiation, from epithelioma, tubercular syphiloderm, and lupus erythematosus. Let us remember that in lupus vulgaris, the course is slow, usually develops before puberty, there is little or no pain, ulcers are usually multiple and superficial, while the edges and base are soft; whereas in epithelioma, the course is more rapid, usually develops in middle or later life, is usually extremely painful, the ulcers are single and deep, while the edges and bases are hard.

With reference to differentiation from tubercular syphiloderm, we will remember that we might have a history of infection, the course is rapid, there might be the usual, con-

comitant signs of syphilis, the nodules are hard, the ulcers are deep with clear cut edges, there is a copious discharge, with the formation of thick, heavy, greenish crusts, the scars are usually soft and smooth, and there is rapid healing under mercury and the iodides.

In contrasting lupus erythematosus with lupus vulgaris, we will bear in mind, that lupus erythematosus develops in adult life, that the disease is quite superficial, that the lesions are well defined scaly patches, that ulceration never occurs, and that the disease is probably closely associated with seborrhoeic disorders. I would state here that absolutely no pathological information, has been given to date which would demonstrate that lupus erythematosus is a tubercular process; neither have tubercle bacilli been found, in either the lesions, or by experimental injections. I therefore refrain from saying more upon this disease at this time.

Permit me, at this point, to take up the question of treatment of lupus vulgaris. Methods of treatment as advocated to date, are many and varied. Each month dermatologic literature brings us tidings of remarkable cures. Some of these I shall present to you, but first I shall mention, the older methods, referring to the use of strong ointments and solutions, with the hopes of destroying the lesions. Salicylic acid, a drachm to the ounce, of ointment base, or the same strength dissolved in collodin. Resorcin may be used in the same way. A ten per cent. ointment of pyrogallic acid is of benefit, used three times daily for a week; it may as well be incorporated in collodin with salicylic acid, ten per cent. of each. Whenever any of these combinations have been used to the point of inflammatory reaction, a mild soothing ointment should be used until the reaction is controlled. I would suggest the use of the unguentum calamine, which combination, I suggested as a mild soothing ointment before the Hom. State Med. Society at its last meeting at Pittsburg. Its combination, I repeat, a half drachm each of, Pulv. Calamine, boric acid and zinc oxide, to the ounce of the official unguentum aqua rosae. Caustic potash, arsenical paste, or chloride of zinc, may be used for immediate destruction of the lesions. Cauterization, curettment, scarification, and excision may be used from the surgical standpoint. Freezing the lesions with ethyl chloride has given good results in some cases. I am very much interested in Pusey's preliminary report on the use of carbon dioxide snow, in the

treatment of naevi, senile concretions, etc., there is no doubt, but that this method of treatment would be of decided good in the treatment of lupus especially in the smaller lesions. Radiotherapy, high frequency currents and the X-Rays have all been used with success. Tuberculin according to McCall Anderson, has given excellent results; others voice their sentiments, quite to the contrary. Lassar contends that Tuberculin is good only in the fungus forms of cutaneous tuberculosis, for which it is a specific. At this point I should like to quote from Lassar, with reference to the finding of a cure for general tuberculosis "On the other hand lupus acts like a preventive inoculation. The reception of weakened virus, implanted into the weakly vascularized part of the rete, growing quite slowly year by year, forms an evident antagonist to a general infection. I am sure that the serum of lupus patients must contain that remedy against tuberculosis which we have sought for so long." Professor Landerer, who died some years ago, suggested the use of Hetol, derived from peruvian balsam, in the treatment of lupus and other tubercular ulcers, contending that he had excellent results from its use. He died before his results could be definitely announced.

With reference to the use of turpentine in the treatment of lupus, Dr. W. S. Hoy, in the *Lancet Clinic* says, "I do not make the slightest attempt to define the reasons why, turpentine does the work for lupus but I do know, that by constantly applying it to a lupous ulcer, it has never failed to restore the parts and cause the ulceration to heal kindly." Dewar in the *Medical Journal*, treated a case by injecting, intravenously, fifteen minims of an ethereal solution of iodoform, plus liquid paraffin, every second day, within forty days the patient was cured completely. Werther gives the potassium permanganate treatment as follows: compresses soaked in a one per cent. solution are applied to the diseased part, and changed frequently, to any ulcerated areas he applies the dry powder, any deep seated nodules he sticks with a pointed match, first dipped in boiling water, and then in the dry powder. Dreuw in the *Berliner klin. Wochenschrift* has devised the following treatment, no matter how deep the lesion. He first freezes the part with ethyl chloride, a treatment he has long advocated. He then rubs in crude carbolic acid, which has been saturated with free chlorine. One must necessarily fear deep scarring, in such a procedure as this. Finally, Winkelried Williams.

in the British Journal of Dermatology, advocates the therapeutic value of fluorescent substances and sunlight. A five-tenths per cent watery solution of eosin, is swabbed on the lesion, until it is stained a decided pink. The patient then exposes the lesion to the sunlight, for an hour or two a day. Treatment is usually continued, from one to three months. Williams reports a number of cases successfully treated.

Constitutional treatment is not to be neglected, and is to be followed out as indicated in other forms of tuberculosis.

The indicated Homœopathic remedy I shall consider at the close of my discussion.

I shall next, call to your attention, for a few minutes, that form of tuberculoderma which is usually seen upon the hands of anatomists, pathologists, butchers, etc. This form is usually known as tuberculosis verrucosa cutis, and is essentially the same as lupus, only that there is greater papillary hypertrophy and that the tubercle bacilli are more easily demonstrated. The lesion consists of a warty papillary surface, with pus exudation, from between the papillæ, with more or less crusting. The base is firm, inflammatory with an absence of the jelly like tubercles. There may be a tendency for central healing, with scar formation; the process is a very slow one and at times may undergo spontaneous involution. The lesions are usually single, although they may be multiple. The treatment is essentially the same as for lupus.

Miliary tuberculosis of the skin is a rare affection, occurring with and independently of internal tuberculosis. In the form of true miliary tubercles, they are rarely seen for they soon break down into soft, flabby, round or irregular ulcers, exuding a sero purulent secretion which forms into thin yellowish crusts. They usually appear at the orifices of the body, although they have been seen elsewhere.

Erythema Induratum, or Bazin's Disease, presents itself usually upon the backs or sides of the calves, as painless, indolent nodules, which usually break down with the formation of ulcers. When they first appear, they are bright red, but later become purplish, surrounded with an areola, which is either dark red or purplish. They may undergo resolution or break down with the formation of deep irregular ulcers, not unlike ulcerating syphilitic gumma. Scar formation is characteristic, both in the ulcerative and non ulcerative forms. The ulcerative forms leaving deep pigmented scars, which are

surrounded with a persistent halo, usually dark red or purplish. The non ulcerative form, results in slightly pigmented atrophic scars. The disease is a decidedly chronic one, slow in its course and is amenable to surgical treatment; care being taken to support the limbs with bandages, and keeping them in an elevated position as much as is possible. The indicated remedy here does good, and is not to be neglected. Scrofuloderma is not a true tuberculoderm. It is usually seen at the side of the neck, in conjunction with cervical tubercular adenitis. Occasionally they are seen in the axilla and may be seen where ever there is a tubercular gland infection. The lesion usually presents itself as a blueish patch, pierced with several sinuses, connected with the underlying, suppurating tubercular glands. Suppuration from the skin may occur due to pyogenic infection, or tubercular foci, may occasionally be found, which however, is the result of secondary tubercular infection. Surgical treatment is usually advised in these conditions, but it is to be borne in mind, that the properly indicated homœopathic remedy has more than once brought about the proper resolution.

Finally I shall have a very few words to say regarding the para-tubercular skin affections. Acnitis and folliclis, both of which have many synonyms, are probably one and the same thing; probably differing only in the distribution of the lesions. They both present themselves as indolent dark red papules, which are inflammatory; become purulent, and run a chronic course. They are seen in those with a tuberculous family history, and who are cachectic. In the first named condition, acnitis, the papules usually group themselves around comedones; upon the chin, the cheeks over the eye brows and temples. While in the condition known as folliclis, the papules are more likely to be seen upon the hands, feet, forearms, and legs, although the face may be attacked. There is a marked tendency for scarring. Acne scrofulosorum is usually seen in tuberculous children, presenting itself upon the lower part of the body, and upon the lower extremities, as groups or minute papulopustules. They are about the size of a pin head, about the hair follicles, and upon a red or purplish base. The eruption is as a rule profuse, is quite chronic and is occasionally seen in adolescents.

Lichen scrofulosorum, like the preceding condition, is seen

in children and adolescents, of the tuberculous type. The papules in this condition, tend to group themselves, circinate, or in the form of a crescent. They are seen about the hair follicles are surmounted with a fine scale, rarely with a pustule, and are decidedly chronic, with a tendency to spontaneous disappearance, only to reappear. The lesions are usually to be seen upon the lower half of the body, and are dark red in color, there are no subjective symptoms. The indicated homœopathic remedy now demands our utmost attention. Not that it can possibly be expected to cure an advanced lupus, but that it can, and has affected its earlier stages, and that it has cured other of the tuberculodermata, is not to be denied.

Tuberculinum, about the 6X, seems to give good results in the slow and persistent types of lupus. Arsenic, Arsenic-iodide, Aurum mur., Baryta carb., Baryta iod., Calcarea phos., Calcarea sulph., Flouric acid, Graphites, Hydrocottle, Kali bichrom., Kali bro, Kali mur., Kreosote, Lycopodium, Mezerium, Natrum mur., Phosphorous, Phytolacca, Psorinum, Silicea, Staphysagria, and Stillingia all have their definite indications, and are productive of good. I shall not, at this time, elaborate upon these remedies, outside of mentioning, them as I have already occupied much of your time.

EMPYEMA OF THE NASAL ACCESSORY CAVITIES.

BY

GILBERT J. PALEN, M. D.

(Read before the Homœopathic Medical Society of Germantown.)

THERE is perhaps no class of cases which comes under the care of the rhinologist, in which a more thorough understanding of the anatomy of the diseased structures and their relations to each other and to surrounding structures is so necessary, nor which demand more skill and experience in diagnosing and treating than the empyemas of the nasal accessory cavities.

The subjective symptoms, in the majority of such cases, are not characteristic, indeed they are vague and various, and, while they may lead one to think of the possibility of the existence of some disturbance in the nasal accessory cavities.

the diagnosis is arrived at mainly by objective signs, the correct interpretation of which is arrived at only by one having a thorough knowledge of the anatomy and one who is, at the same time, skilled in technique.

The variety of symptoms found among a series of cases, is due to the various relations which the nasal accessory cavities have to other structures.

It was my privilege, some years ago, to read a paper upon this subject before our State Medical Society, in which I called attention to the relation of diseases of the nasal accessory cavities to diseases of the eye, and especially the relation of closed empyemas to eye diseases. In recent years a great deal has been written upon this subject and, on account of the work of anatomists, pathologists, rhinologists, and ophthalmologists, our knowledge of the diseases of these bony cells and their relations to other conditions has been greatly increased.

The nasal accessory cavities connect with the nasal cavities by small openings in the middle and superior meatei; they are lined with mucous membrane, which is an extension from the nasal cavity through these openings. This membrane is liable to the same forms of inflammation as are found in the nasal cavities and, in the majority of cases the lesions are secondary to similar ones of the nasal cavity, or to obstructive conditions. The exceptions to these are: traumatic conditions, lesions in the antrum of Highmore due to diseased teeth; infections occurring through the blood and the infection of one cavity from the secretion of another.

According as these openings in the nasal cavity remain free or become obstructed during a suppurative process, we have either an open or a closed empyema, and this may be acute or chronic.

The acute or chronic symptoms of these conditions are less when the normal openings are unobstructed; they are markedly aggravated when these openings become closed by swollen mucosa, polypoid conditions, etc.

What symptoms are suggestive of an acute empyema?

Neuralgia of the face with tenderness along the infraorbital ridge or the gums; a gradual increasing severity of symptoms, then sudden relief following a profuse discharge from the nose which is usually unilateral, although often bilateral, followed later again by the same increase of symptoms with

relief from nasal discharge; tenderness of the teeth, especially the first and second molars, would suggest a suppurative condition of the antrum of Highmore. The pain is due to tension, caused mainly by the secretion within the cavity and is relieved when the cavity is emptied.

Severe frontal headache, stupefying feeling in the head with aching of the eyes, pressure at the root of the nose, tenderness along the supra-orbital ridge and especially above the inner canthus, relief from nasal discharge, as in diseases of the antrum, are suggestive of a suppurative condition within the frontal sinus. This type of headache you have frequently seen in acute rhinitis and especially during attacks of influenza.

Acute conditions of the sphenoidal sinus and ethmoidal cells does not occur frequently. In one case of acute sphenoidal empyema, which followed the removal of the posterior end of the inferior turbinate with the hot snare, the patient had intense pain in the neck and occiput and marked vertigo.

If, during any of these open empyemas, the normal openings become closed, all symptoms are aggravated and, if the closure continues, other symptoms develop, these being due to bulging or rupture of the cavity walls, and to pressure upon, or invasion of, surrounding structures.

In chronic open empyemas the main suggestive symptom is a nasal discharge. This is usually unilateral (although often bilateral) and a unilateral nasal discharge should always suggest an examination of the nasal accessory cavities. These patients frequently complain of a foul odor and a foul taste to the secretion, and on account of this symptom they shun society, believing the odor to be perceptible to others. It is noteworthy that in these cases the odor is not perceptible to others and also noteworthy that the patient notices this himself, as in ozoneas the patient, while having exceedingly foul breath, does not notice the odor himself, having lost the sense of smell. In addition to the nasal discharge, there are other symptoms which may suggest the possibility of the existence of an empyema; dull stupefying headaches, inability to concentrate the mind, dull aching at the root of the nose, neuralgias of the face and tenderness of the teeth and gums.

As you will see from the symptoms cited, there are none which are not also met with in nasal and other conditions, so that in every case a thorough examination of the nose must be made and it is then often no easy task to determine definitely

the condition, and having determined that an accessory cavity is diseased, it is a difficult matter, in the majority of cases, to determine which one. This difficulty is due to the close relations of these various cavities to each other and especially the close relations of their openings in the nasal cavities. Patience and care in examination, based upon a knowledge of the anatomy will, however, bring results.

We are dependent, mostly, in our objective examination upon the discharge, and especially upon the position in which this is found in the nasal cavity.

Pus upon the inferior turbinate or in the middle meatus, may come from either the antrum, the anterior ethmoidal cells or the frontal sinus, the openings to these cavities being found in the middle meatus. Having found pus here, we have then to determine which one of the cavities we have to deal with.

Pus in the olfactory fissure or upon the middle turbinate, may be from the posterior ethmoidal cells or sphenoidal sinus and again we must eliminate. Pus found on the roof of the naso-pharynx, or in the upper portion of the posterior nares, may also be from the posterior ethmoidal cells or the sphenoidal sinus and we must again eliminate.

It has not been my intention, however, to go into a detailed description of the methods and steps used in determining these conditions, but to give simply a brief resume of the subject and to cite a few cases, which I have picked from a number, showing the relations of these empyemas to other conditions.

CASE I, Mrs. G., Aged 32. Subjective. For five days she has been seeing double, the objects being directly above each other and widely separated; has had considerable pain below the eye and slight tenderness with deep aching in the orbit.

She has never had a nasal discharge at any time nor any apparent catarrhal trouble other than colds. She has just recovered from a severe cold.

Objective: Eye. Left eye deviated upward; limited motion downward; slight puffiness and redness under the eye; very sensitive on deep pressure with probe under the eye and along the infra-orbital ridge; haziness of the optic disc; vision 15-30 or half the normal.

Nose: Middle turbinate markedly swollen, intensely red, bleeds easily, no secretion.

I placed a pledget of cotton soaked with adrenalin chloride

against the middle turbinate; within a few minutes I found, upon removing this, a marked contraction of the middle turbinate and, upon closer inspection, a drop of pus within the middle meatus. This was followed shortly by a profuse discharge. The patient was given some of the solution to use at home and was instructed to call the next day, when I found there was marked improvement. In three days the discharge had markedly lessened, the pain and tenderness had disappeared, the discharge ceased in one week, the haziness of the optic disc lasting two weeks although the vision was normal in less time.

Diagnosis: Acute closed empyema of the Maxillary Sinus with eye symptoms.

CASE 2, John S. J., Aged 22 years. Subjective. Patient was suffering from influenza and began to complain of intense headache and tenderness just above and to the left of the root of the nose; could not think at times; then would blow out large quantities of mucous from the left nostril and have relief for a time, but in about two hours attack started again and lasted several hours, then relief again. During the last two days there has been no let up; the tenderness has materially increased and he sees things blurred; he seems stupefied; stops to think; forgets the word he wants.

He has always had some slight obstruction in the left nostril, but never noticed any discharge.

Objective: Marked tenderness over the root of the nose and just above the left inner canthus. Here also a slight very sensitive doughy swelling; slight oedema of the lid. When he looks upward and inward at my finger says he sees two. Fundus O. K.—Vision + 50 cyl. Axis 90.=Normal.

Nose: Slight swelling and redness of the anterior end of the middle turbinate; mucous membrane looks glazed and dry.

I tried to catheterize the frontal sinus but it was impossible to do so. I therefore removed the anterior end of the middle turbinate and after much difficulty succeeded in passing a probe into the sinus; this was followed by the appearance of pus. I then put a small pledget soaked in adrenalin in the infundibulum and in two hours there was marked relief following profuse discharge.

Diagnosis: Acute closed empyema of the left frontal sinus with inflammation of the optic nerve.

CASE 3.—Mr. Joseph B., Aged 34 years. Subjective.

Complains of intense sensitiveness of the teeth on the left side of the jaw; they seem too long; soreness in the hard palate same side. When he stoops often has discharge from the nose; has constant foul odor in the nose and foul taste at times. At times shooting neuralgic pains through the left side of the face and in the left ear.

Objective: Sensitiveness of the teeth marked when palpated; slight swelling above the bicuspid and first and second molars. The first molar has been broken off and is carious. Sensitiveness of the hard palate but no swelling. Ear and eye normal; nose inferior turbinate slightly congested and covered with pus; after removing this and bending patient's head over for a few minutes pus was found issuing from the middle meatus. Suspecting a lesion of the antrum due probably to the diseased first molar, I extracted this. Immediately pus welled out and I was able to pass a probe into the antrum. The opening was enlarged and, after six weeks of syringing the cavity, the case was cured. Diagnosis: Acute open empyema of the Antrum of Highmore due to infection from abscessed tooth.

CASE 4.—Mrs. William H., Aged 39 years. For months she has had profuse dark foetid expectoration, mixed at times with foul tasting crusts, the expectoration being worse mornings on arising; during the day droppings in the throat; these nauseate. She has a constant dull feeling deep in the head. at times this increases so that she cannot remember; she fears to lose her memory. At such times has great vertigo and some nausea and slightly blurred vision, but little expectoration. When the attack subsides, which it does usually suddenly, she then expectorates large foul tasting crusts and large amounts of yellowish green thick secretion. She has lost thirty pounds in the last eight months. She shuns her friends for fear they will detect foul breath.

Objective: The patient appears haggard and emaciated and is extremely nervous.

Examination of the nose: Marked atrophy of the nose, which allows good examination of the entire cavity. Large masses of crusts situated in the upper and posterior portions of the nasal cavity. Upon removing these I found beneath them a pulsating reflex. Measuring the distance of this from the supramaxillary spine, with my probe, it corresponded with the opening to the sphenoidal sinus, and, after slight manipulation, I was able to pass my probe into the cavity. I advised opera-

tion, and the next day, after thoroughly cleansing and cocainizing, I opened the anterior wall of the cavity. Immediately the patient became unconscious and remained so for two hours. Two days later I finished opening the cavity and curetted it, then cleansed the cavity daily for three months; at the end of that time all of the symptoms had disappeared, patient regaining flesh and general condition markedly improved. Diagnosis: Chronic empyema of the left sphenoidal sinus with acute exacerbations due to temporary occlusion of the cavity opening from crust formation. Associated brain symptoms due to pressure.

CASE 5.—Frank K., Aged 19 years. (Reported before the State Society.)

Subjective. On arising one morning the patient noticed that he saw double and that the left eye protruded. Had suffered for two years from severe headaches; hindered nasal breathing; profuse yellowish discharge from left nostril, this latter having ceased two months prior to his visit to dispensary. He had been operated upon twice; first for polypus and the second time for hypertrophy of the left inferior turbinate. Objective. On examination of the left eye there was found ptosis, oedema of the eyelid; deviation of the eye outward and downward with limited motion inward; further, crossed diplopia. The optic disc was slightly swollen, its outlines indistinct and the veins tortuous and slightly engorged. V. with—2 D=5-10. The right eye with the exception of a slight myopia was normal.

Upon deep palpation in the inner angle of the orbit, a soft somewhat sensitive tumor was found.

An examination of the nose was made and the posterior ethmoidal cells found diseased. The operation was followed by a profuse flow of pus.

Two days later the exophthalmus, ptosis and oedema of the eyelids were markedly less; movement of the eyeball less limited and double vision gone. Two months later all symptoms had disappeared, with the exception of a slight haziness of the optic disc. Diagnosis: Chronic closed empyema of the posterior ethmoidal cells.

CASE 6.—Mary D., aged 27 years. Subjective. Became suddenly blind yesterday in the right eye. Has had dull deep pain referred to a point back of the nose for some weeks. For two years has had at times considerable expectoration; very foul tasting and mixed with crusts. At times very severe stu-

pefying feeling in the head; has feared she might go crazy, as, during these attacks, she forgets everything. Attacks have always subsided when she has blown out large quantities from the nose; this has been very foul smelling and tasting. She has suffered for six months from a profuse discharge from the eye with redness and swelling of eyelids.

Objective. The optic disc was swollen; veins enormously engorged; arteries narrowed; a few isolated hemorrhages in the retina; some sensitiveness in the inner angle of the orbit. Examination of the nose, after the removal of the middle turbinate, showed empyema of the sphenoidal sinus and posterior ethmoidal cells. The thorough opening of these cavities and removal of necrosed bone brought about, in four months, a complete recovery.

In these few cases we have found optic neuritis, ptosis, oedema of the eyelids, exophthalmus, deviation of the eyeball with diplopia, conjunctivitis and brain symptoms due to pressure. Furthermore the relation of diseases of the teeth to those of the maxillary sinus are shown.

Cases of brain abscess and meningitis are recorded by others and also cases showing the involvement of the various structures having relations with the nasal accessory cavities.

A DETAILED ACCOUNT OF AN UNUSUAL EVENT.

BY

THE PUBLICATION COMMITTEE OF THE LEHIGH VALLEY HOM-
OEOPATHIC MEDICAL SOCIETY.

The Northampton County Medical Society (Old School) invited the Lehigh Valley Homœopathic Medical Society to a meeting for the consideration of matters of mutual interest, with reference to proposed medical legislation in Pennsylvania. Committees of five were appointed by each of these societies, and a series of meetings were held at Bethlehem and Easton, Penna. Drs. A. A. Seem, of Bangor, W. P. Walker and E. D. Schnabel, of Bethlehem, and E. M. Green and Charles McIntire (chairman), of Easton—the last named being Secretary of the American Academy of Medicine—were the committee representing the Old School society; and Drs. D. W. Straub, of Bethlehem, Edgar C. Statler and H. A. Fehr, of

Allentown, and E. D. Doolittle and William A. Seibert (chairman), of Easton, represented the Homœopathic society. They organized by electing William A. Seibert as chairman and E. D. Schnabel as secretary, and held a series of meetings that was notable for good feeling and cordiality throughout.

The ostensible purpose of these meetings was to unite forces to prevent legislation that would grant rights to non-medical sects unduly qualified. The real purpose was to convince and persuade the homœopaths that a single board of examiners was the best, if not the only practical way to deal with this vexed problem. When it became evident that no harmonious result could be arrived at, two sub-committees were created. Sub-committee "A" to frame suggestions for a separate board bill, that would protect our rights and the rights of the public against unqualified practitioners; and sub-committee "B" to frame suggestions for a single board bill that would be fair to the homœopaths as well as to the old school. These sub-committees had several meetings each, and presented the following reports at the final meeting of the entire committee:

Sub-committee "A" with Dr. Straub as chairman, reported as follows: "Sub-committee "A" appointed October 25th, 1907, at a union meeting of Physicians of the Lehigh Valley, to formulate a plan by which a three board bill can be so protected that it will not be open to additional boards for improperly prepared applicants, begs to report as follows:

Whereas, the three board bill, as now in force, is amply protected by the commission, whose duty and privilege it is to examine all examination papers, and sign all licenses; and

Whereas, the standard of qualification required by said bill is such that no one can be licensed to practice Medicine, Surgery, Obstetrics, or any of its branches, unless they pass examinations in the fundamental branches of medicine and surgery, and in addition thereto pass an examination in Practice, Therapeutics and Materia Medica; therefore

Resolved, that the present three board bill covers all that is necessary in present conditions; and further

Resolved, that should it become necessary at any time in the future, to appoint additional boards of examiners for the examinations of any future sects, cliques, or branches of medicine, Surgery or Obstetrics, as the case might be, then it is the sense of your committee, and we beg to recommend that any such additional boards, so appointed or created, must in all cases

equal the present standard of the three boards already existing. That if any legislation be attempted, or any changes or alterations to our present three board system contemplated, we would recommend or suggest that another section be added to the present three board bill, which shall read as follows: Any person contemplating to practice any system of Medicine, Surgery, Obstetrics, or any of its branches, in the State of Pennsylvania, in any way, manner, system or procedure, not in affiliation, or of necessity not covered by the present recognized three systems of medical practice, and its boards of examiners, then a fourth or fifth board of examiners may be created or appointed. These additional boards must in all cases require the requisite preliminary education; the applicants for examination must have attended lectures for at least four years in a chartered medical institution; and pass a satisfactory examination in Anatomy, Physiology, Chemistry, Histology, Hygiene, Practice, Therapeutics, and Materia Medica; and the supervision and examination of medical papers for examinations, and the licensure of all candidates must in all cases be under the control of the commission, as prescribed in other sections of this act; or words to the same effect.

This report was signed by Drs. Straub, Statler, Schnabel, Fehr, and Walker, the entire sub-committee.

Sub-committee "B," with Dr. McIntire as chairman, presented two reports, as follows:

Drs. McIntire, Green and Seem reported:

"A medical practice act providing for a single board of examiners should include the following provisions:

I. The secretary of the board shall not be a member of the board.

II. The subjects for examination shall be divided among the members of the board by formal action of the board.

III. These subjects for examination shall be:

1. Anatomy.
2. Physiology.
3. Chemistry.
4. Pathology.
5. Sanitation (hygiene.)
6. Diagnosis.

These six subjects shall be known as Junior subjects.

7. *Materia medica* and therapeutics a.
8. " " " " b.
9. " " " " c.
- &c.
10. Practice of medicine a.
11. " " " b.
12. " " " c.
13. Surgery.
14. Obstetrics.
15. Gynecology.

These latter subjects shall be known as the Senior subjects.

IV. The applicant for license shall present to the secretary of the board evidence of his having the required qualifications in such a manner as shall be provided by the board. If these are approved and the fee paid, the secretary shall issue an order for an examination.

V. The applicant for license shall present the order to the examiners at the time and place of the examination. It shall be endorsed by one of them and handed back to the applicant, who shall select at random an envelope from a tray provided for the purpose. These envelopes are to be numbered previously. The number on the envelope is to be the number to be placed on the papers answering the questions by this applicant. After selecting the envelope, he shall note the number, place therein the order for examination and seal it. He shall indicate on the outside of the envelope in a manner previously determined, his school of practice, and shall deposit the same in a locked box provided. This box is to be sent without unlocking to the office of the secretary after all the applicants have deposited their envelopes.

VI. The examination papers are to be signed by number only. When an applicant has finished a paper on any subject, he shall place it in an envelope provided by the board, on which is endorsed the subject of the examination but no number; this shall be on the paper only. The envelope shall be sealed and returned to the examiners. All the questions are to be furnished to every candidate, but he is to answer only one set of questions when they are indicated by a letter as well as a number. These envelopes will be distributed according to subjects without opening.

VII. The examiner after reading and marking the papers, shall select those that, in his judgment, have failed to receive

the passing mark and send them to the secretary. The secretary shall compare the number on the paper with the number on the envelope containing the order for examination, but shall not open the envelope. Should the school of practice of the examiner and the applicant be the same, the marking shall stand. Should they not be the same, then the papers shall be sent to the member or members of the board of that school of practice for reading and re-marking. Should the paper be marked below the passing grade, the markings shall stand. Should the second marking be over the passing grade, the papers must be read before the entire board, and a vote taken, the markings of the second reading will stand unless every other member of the board than those who gave the second marking, vote to the contrary. In all cases where the board is called for the final decision, the vote and the reasons therefor shall be made a matter of record.

After the final disposition of all the papers has been made the secretary shall open the envelopes in the presence of the board.

VIII. Personnel of the board. The board shall consist of eleven persons. At the first appointment, they shall draw lots, four serving for two years, four for four years, and three for six years. Their successors shall serve for six years, unless appointed to a vacancy for an unexpired term. Before the first appointment, the state societies representing the licensed practitioners shall certify to the Governor the number of their members. The Governor shall appoint nine examiners from the membership of these societies, from the societies having the smaller number of members, one examiner for every thousand, and the remaining number to complete the nine from the society having the largest number of members, and, in subsequent appointments, the vacancy shall be filled by a member of the same society to whose position he is succeeding. Providing, that once every twelve years the certified membership shall be reported to the Governor, for a new apportionment if it need be. The remaining two appointments shall be at the Governor's disposal, they must be learned in some of the branches of medicine, but need not possess the degree of M. D. they can not both belong to the same school of practice.

IX. Any applicant may elect to take the examination for the Junior studies alone, and, upon passing, be permitted to perform some of the duties of a physician. He shall receive

a **CERTIFICATE FOR LIMITED PRACTICE** and this fact must be displayed at the office of the person so practising in such a way that he cannot be mistaken for a licensed physician.

X. A certificate of limited practice will not permit the administration of drugs or chemicals (medicine) the use of cutting instruments in surgery, nor the employment of electric or special light apparatus nor the practice of obstetrics.

XI. To practice without a license is a misdemeanor, and a license should be revokable for just cause. It should be the duty of the office of the board of examiners to be on the watch to prevent illegal or disreputable practice and to be the official prosecutor in all such cases."

Drs. Doolittle and Seibert presented the following:

**"MINORITY SUB-COMMITTEE REPORT ON THE POSSIBILITY OF
A SINGLE BOARD BILL.**

We cannot subscribe to any single mixed medical examining board, however 'fairly' framed, for the reason that such a board would necessarily be composed greatly, if not mainly, of an element that is not tolerant of the remainder of said board. Even a casual questioner might properly ask: 'If not a united profession, how could a single board be fair, and what need for separate colleges, hospitals, etc., etc.?'

The fact of such intolerance should need no demonstration. It is illustrated in the membership requirements of the Medical Society of the State of Pennsylvania, and all its component societies. To wit:—

'Every reputable and legally registered physician, who does not practice, nor lend his support, to any exclusive system of medicine, shall be entitled to membership.' Part of Sec. 3, Chapter X, By-Laws Medical Society of the State of Pennsylvania.

Also—

'The Principles of Medical Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.' Ibid., Sec. 4, Chap. XI.

Also—

Any legal practitioner * * * who is willing to subscribe to the Principles of Medical Ethics of the American Medical Association shall be eligible, etc.' Part of Sec. 3, Art. III, Constitution Medical Society of Northampton County.

The offensive Section in the Principles of Medical Ethics of the American Medical Association is in Chapter II, Article 1, and Section I, viz.—

‘It is inconsistent with the principles of medical science, and it is incompatible with honorable standing in the profession, for physicians to designate their practice as based on an exclusive dogma or a sectarian system of medicine.’

As a result, directly and indirectly, of this intolerant attitude of the dominant school, fairness of representation upon a single board would be impossible, because of inequality of the individuals composing said board. A citizen of the State, whose rights are curtailed by a class representing a large majority, is not an equal representation with one who is not thus hampered. These rights refer not only to the society membership restrictions referred to, but also to an implied and well understood attitude regarding consultations; to the exclusion from privileges of any kind in certain leading institutions in our State, who refuse post-graduate, hospital and other advantages, notwithstanding the most generous appropriations to their maintenance from the treasury of our State. Government, military, and insurance exclusion attitudes must also be considered in estimating the individual coefficient of the members of a single board—especially since these matters are so by the decree of the dominant and favored school. Single board legislation, therefore, seems to be a class legislation that would, sooner or later, smother the minority into a beggarly position. The practical illustration of this truth comes as evidence, and a warning, from the various states where single board legislation, in some form or other, has been tried; and most particularly does it come, as a cry, from our various colleges, whose entering classes are seriously reduced in numbers.

Another reason why a single board would not be fair legislation is based on the fact that the main object of legislation is protection. Fifteen hundred physicians in our State, and their very respectable clientele, embodying a large percentage of our citizens, enjoy a protection under the separate board system that would be sacrificed if the single board idea would prevail, under existing conditions. True, the conditions now exist to a degree, because to claim to practice ‘both ways’ does not seem to disqualify membership in societies of the dominant school; but the Homœopathic public and physicians would be deprived of all protection from every impostor who had never

studied Homœopathy, and knows nothing whatever about its application and merits. Indeed such disreputable methods would justly serve to bring Homœopathy itself into undeserved disfavor. Homœopathic colleges confer the degree of 'Doctor of Medicine' upon its graduates, to acquire which it is expected of every student to comply with every requirement imposed by the old school upon its graduates; they also confer the degree 'Doctor of Homœopathic Medicine' upon its candidates, after they have passed satisfactory examinations upon Homœopathic Materia Medica and Therapeutics. We are ever ready to co-operate in the advancement of medical science, to raise the standard for admission and graduation from college, to unite in enforcing all acts of legislation to the letter, and to punish and bear punishment for their infraction, but shall insist on a 'square deal.'

These are the main reasons why we can not unite at this time in recommending, in toto, the suggestions for a single board projected by Dr. McIntire.

May we be indulged in a few words that may draw attention to the main cause of all our honest differences. Our definition of 'Homœopathic Physician' has always been—

'A Homœopathic Physician is one who adds to his knowledge of Medicine a special knowledge of Homœopathic Therapeutics and observes the Law of Similia. All that pertains to the great field of medical learning, is his by tradition, by inheritance, by right.' Published conspicuously in each volume of the annual 'Transactions of the American Institute of Homœopathy.'

Is this so understood by the dominant school? If so, what explanation is there for the discrimination in their attitude toward other specialties? Their definition of an 'Exclusive System' never applies to a homœopathic physician therefore: Their definition of a 'Sectarian System,' on the other hand, could not be better illustrated, as we understand it, than by their own dogmatic and intolerant attitude. Our definitions, therefore, need revising, and not until they have been honestly revised can the medical millennium become possible, even after the sincere desire does overtake the several branches of our noble profession."

These various reports having been received, the Joint Committees voted unanimously as follows:

With reference to the report of sub-committee "A":

"The adoption of the resolutions reported by this committee and that the original committees refer it to their respective societies, recommending its consideration and adoption, if it can be shown that it will be possible to secure such legislation without serious amendment, and is the sole legislation for licensure by the Legislature."

With reference to the reports of sub-committee "B":

"The acceptance of the two reports by this committee and that they be referred to the respective societies, with the recommendation that it be made an alternative proposition, if the existing conditions unfavorable to such a board can be removed."

At the last meeting of the Lehigh Valley Homœopathic Medical Society, when its committee rendered the above report, it adopted the following resolutions:

"Whereas, the Northampton County Medical Society (Old School) invited the Lehigh Valley Homœopathic Medical Society to a friendly conference regarding proposed legislative changes, of mutual interest, in Pennsylvania; and

Whereas, such procedure is unusual, and probably epoch making, indicating a recognition of 'the principle of individual freedom of belief and action on which our Commonwealth is founded,' and a decadence of the 'medieval idea of *compelling* uniformity;' and

Whereas, the interests of the public can best be protected be a co-operation of all physicians that have complied with all the laws of our country; Be it

Resolved, that we express our keen appreciation of this step taken by the Northampton County Medical Society; and

Resolved, that we agree to co-operate in everything that tends to a correction of present and impending evils; and

Resolved, that we transmit these resolutions to the Northampton County Medical Society."

EDITORIAL

THE PATHOLOGY OF THE LIVING.

Until recent years practically all of our knowledge of the pathology of internal diseases was learned at the post-mortem table. Valuable as the information thus gained has been, clinicians have realized for a long time that it failed to supply us with the data necessary for early diagnosis during life and rarely did it give us any light on how to treat diseases in their beginnings..

Moynihan, in a recent address before the British Medical Association, calls the attention of the profession to the valuable information relating to the pathology of the living human organism that is being contributed by the abdominal surgeons. In fact the data gathered from the operating table has shown that no small part of the post-mortem room pathology is of insignificant value as compared with the pathology of the living. Thus, for instance, in the case of gall-bladder disease or ulcer of the stomach, it is of much greater service to us to see the exact processes and conditions that are present at the moment of the patient's illness than to wait until months later when extensive involvement or secondary infection has overshadowed the early condition.

The most notable contributions that the abdominal surgeon has made to the living pathology, have related to diseases of the stomach, gall bladder, intestines and peritoneum. For example, we now know that duodenal ulcer is by no means a rare disease, (Moynihan himself having operated 160 cases) though formerly its existence and its manifestations were almost unknown. Another practical finding has been the fact that cancer of the stomach in a very large per cent. of cases developes on the base of an old ulcer. The diagnostic and therapeutic significance of these facts are of course obvious.

Again the surgeon has demonstrated the very common occurrence of gall-stones, as well as the fact that the symptoms which were formerly considered as essential to diagnosis cholelithiasis are, in truth, the symptoms due to the presence of

some of the complications resulting from the presence of the stones. Thus, jaundice had been found present in less than twenty-five per cent. of cases. On the other hand the most frequent symptom associated with the presence of stones in the gall-bladder is pain in the epigastrium coming on about an hour after the meal, associated with the distention of the stomach and flatulence. Moynihan also claims that the statement that gall-stones may exist for years without causing any symptoms is another example of post-mortem fallacy. The symptoms may not always be marked but in his observation a careful study of the cases of stones in the gall-bladder will show symptomatic evidence of their presence.

These few examples of surgical findings clearly indicate that we have here a great field for investigation, and one that promises to increase our capacity to make early and accurate diagnoses and to apply proper therapeutic measures. It is by a careful study of the clinical history of the case followed by a thorough investigation of the diseased parts during the life of the patient that the foundation of a useful clinical pathology can be built. As far as relates to the treatment of the living, it is probable that the clinician can learn more in the operating room than at the post-mortem table.

COMMON SENSE IN MEDICINE.

We are living in a day of transition in medicine as well as in religion, politics and finance. The traditions of the past, that for centuries guided our medical predecessors, are one by one being laid aside as disproven and too often, alas, we have nothing more substantial to substitute in their place. In the midst of all this chaos and turmoil we see new sects of healers rising up and for a time, at least, flourishing like the proverbial "green bay tree". The public are gone mad after something *new* and it would be difficult to devise a method of therapeutics so ridiculous or so irrational that it would not attract adherents to its fold. It is not strange, then, that many physicians are confused by the rapid changes in professional and public opinion and wonder what will be the outcome of it all. Never was there a time in the history of medicine when it was more necessary that the physician should exercise

his individual powers of reasoning and bring to bear on the therapeutic problems of the day a large supply of plain, homely, common sense.

Benjamin Franklin may well be considered one of the greatest and most useful men that America has produced. And wherein lay the secret of his success? He was not a genius, he had no special advantages of education or of training. The true key to his success lay in the fact that he was possessed of a large stock of common sense. He had the faculty of keeping his eye on the practical facts of life and his mind on the causes of these facts. He was a close observer; he saw the things that other men had seen for centuries, but he was not content with seeing. He went further and sought after the causes, the whys and wherefores of the phenomena before him, and his investigations enriched science with some of the most fundamental and most practical contributions ever made by any philosopher in any time. And let us not forget he accomplished these results without the use of elaborate or complicated apparatus but mainly and chiefly by processes of reasoning, simple in themselves and easily within the comprehension of us all.

It is this type of men and this kind of thinking that are most needed in the practice of medicine to-day, when there are so many hysterical and disorganizing factors at work both within and without our ranks.

Consider for a moment the subject of medical diagnosis. How many, especially among the younger practitioners, are prone to rush from the bedside to the laboratory with the specimen of sputum, blood or what not, bent on making a diagnosis without regarding the clinical history of the patient's disorder or without taking the time to make a careful physical examination. Let us not be misled by the laboratory fad. We recognize the incalculable value of the laboratory to the clinician, but we insist upon it that examinations by means of the microscope or the test tube can never take the place of careful and painstaking observation at the bedside. Only by careful and repeated examination of the sick can the experience and knowledge essential to the making of a successful practical physician be acquired.

But if there is confusion in methods of diagnosis, what shall we say of therapeutics!

The healers of the sick are indeed a motley crowd. On

one side we see the "Indian doctor" with his collection of skins and herbs, and on the other the "Christian Scientist" with his present or absent treatment; here the osteopathist and there the psychotherapist; here the surgeon and there the electro-therapist; here the materialistic polypharmacist and there the homœopathist; here the hydropath and there the dry air specialist, and so on through an innumerable list that would tire the writer to relate and the reader to hear. What is more essential for the physician in selecting from all this jumble of true and false that which he may employ to advantage in the treatment of the sick than a large and well trained bump of common sense? Let us not be in too much of a hurry to abandon the old, nor let us be in too great haste to take up the passing fad, but let us carefully and considerably prove all things and hold fast to that which is good.

As to the charlatans and frauds that spring up around us and for a time reap the golden harvest, let us remember that these are but bubbles floating on the surface of the great sea of time. One by one they come and go but the great profession of medicine pushes steadily onward, ever growing in beneficence and usefulness, having its source in the depths of human frailties and human needs, and seeking as its highest end the amelioration of human suffering and the perfect development and prolongation of human life.

A CASE OF METASTATIC CARCINOMA OF THE IRIS.—Pathological examination by F. H. Verhoeff, M. D., Boston. Metastatic carcinoma of any part of the eye is comparatively rare. As is well known, the metastases are more frequently situated in the choroid, about forty such cases have been reported. Three cases have also been reported in which the metastases occurred in the ciliary body. The writer reports a case in which the iris was the only part of the eye attacked, which he believes is the only case of its kind on record. The specimen submitted for examination consisted of a small piece of iris tissue containing a tumor 6 mm.x2 mm. x 3mm. in size, which upon microscopical examination was found to be growing entirely within the stroma of the iris, while all that remained of the iris stroma were its blood vessels and a few strands of connective tissue radiating from them. The most striking feature of the growth was its extraordinary abundance of mitotic figures. This would indicate the highly malignant character of the growth, which the writer, by a process of differentiation, diagnosed metastatic carcinoma of the iris.—F. A. Proctor, A. M., M. D. *Annals of Ophthalmal.*

WILLIAM SPENCER, M. D.

GLEANINGS

TREATMENT OF PELVIC INFECTIONS.—Pelvic infection is a destructive process, sometimes causing only mild disturbances and sometimes causing death with or without provoking a marked inflammatory reaction. Pelvic inflammation is a protective process which may or may not save the life of the patient, according to the inflammatory reaction, and has no power of self-extension, but tends rather toward repair.

Puerperal infections are usually due to the introduction of bacteria during or after delivery, but may be caused by the presence of germs in the vagina, cervix, pus-tube or ovary, appendix, bowel or peritoneum, during delivery of the puerpera. With the onset of puerperal infection all stitches should usually be removed and vagina and uterus freed from foreign material with as little damage to the linings of these organs as possible.

During the acutely active stage of a pelvic infection the patient should usually receive no operative treatment until it may be determined that drainage or removal of some organ will remove or decidedly lessen the source of infection. Then drainage, removal of the uterus, tube, or ovary may be indicated. The removal of acutely inflamed pelvic organs is not indicated for the inflammation *per se*.

Non-puerperal, non-operative, acute infection is usually, but not universally, of gonorrhoeal origin. An acute primary infection of the tubes and ovaries should be treated conservatively in the beginning, to save these organs. During an acute attack of infection, if the patient is not doing well, drainage may be performed to hasten convalescence or save the life of the patient.

Chronic pus-tubes should be removed. Immediately upon the onset of an acute infection in chronic pus-tubes, a radical operation may be advised, but should this be delayed until infection is distributed through the pelvis, drainage is more desirable if operation becomes necessary. Two safe operations are always preferable to one dangerous one. A radical operation should aim to make the least possible traumatism to tissues that are to be left, and cause the least possible distribution of infected material. To that end the writer commends the technique described by him, of severing the tube from its broad ligament and uterine attachments before a forcible effort is made to lift it out of the cul-de-sac.—C. W. Barrett, *Annals of Gynecology and Pediatrics*, October, 1907. *Monthly Encycl. of Medicine.*, Nov., 1907.

VERRUCAE PLANTARES; THEIR TREATMENT.—As the result of an experience with a large number of cases, Bowen gives the following suggestions as to treatment: In a considerable number of cases, salicylic acid in collodion 10% strength was sufficient after some time, to remove the lesions. It was painted on daily, and the foot soaked every other day for 20 minutes in hot water, and then pumice soap used to remove as much of

the lesion as possible. He has also had some success with chrysarobin, which was added in 10% strength to the salicylated collodion. In other cases success was attained by covering the lesions constantly with a 60% salicylated gutta percha plaster. Almost all of these lesions will yield to the above treatment if persisted in long enough. The late Dr. Warren, who had a large experience in a boy's school, came to the conclusion that the best treatment was the Paquelin cautery after cocainizing the wart. This method is almost painless, and leaves the smallest possible scar. Electrolysis has been effective in the author's hands, but without any local anæsthesia it is very painful, and the same may be said of the strong caustics.—*Boston Medical and Surgical Journal*, December 12, 1907.

THYROID EXTRACT IN EPILEPSY AND MIGRAINE.—Dr. Alfred Gordon reports ten cases of migraine and epilepsy in which he used thyroid extract with most satisfactory results in warding off the seizures. The prescription was based upon the supposition that there might be a hypothyroidization present. Unfortunately, the author's cases are not reported with sufficient detail to enable us to say *a priori* to which class of cases of these diseases, thyroid is indicated. We know, of course, that deficient thyroid secretion must have existed, but we are not given the data to enable us to recognize that state. The author seems to have been actuated solely with the idea that bromides, etc., having failed, thyroid was worthy of trial. The suggestion is one well worthy of thought and which physicians having obstinate or apparently incurable case of epilepsy and migraine should act upon. The dose of thyroid is five to ten grains three times daily; the patient to be watched carefully lest symptoms of poisoning develop.—*Therapeutic Gazette*, December, 1907.

THE MIGHT OF THE INFINITESIMALLY SMALL.—The application of a few drops of oil is often the secret of an enormous piece of machinery doing its work smoothly and well, the work accomplished being out of all proportion to the quantity of oil used. On the other hand, a little grit may effectually stop the machine. Little things may serve, therefore, either to retard or to accelerate highly important processes. We know what infinitesimally small quantities of certain substances will put an end to the great vital processes, and we know also how endless appears to be the action of enzymes or ferments which render food assimilable so that the same vital processes are sustained. A thirtieth part of a grain of aconitine will kill the human organism; one part of an enzyme will transform 100,000 parts of cane sugar into invert sugar; the enzyme of malt will convert a thousand times its weight of starch into sugar, and so forth. Nor is the enormous action of infinitesimally small quantities confined to the organic or organized world. Even certain materials devoid of life are found to exert a similar action. Platinum, for example, in the colloidal state, is capable of decomposing 1,000,000 times its weight of hydrogen peroxide into water and oxygen, and then of remaining as strong and as active as ever. Perhaps the most remarkable fact in connection with the extraordinary vitality of colloidal platinum is that its energies are at once paralyzed by such ordinary animal poisons as prussic acid, corrosive sublimate, or sulphuretted hydrogen. The platinum may thus be said to be the poisoned, and such a small quantity as one millionth of a

grain of prussic acid is sufficient to prevent this great transforming power. To give another example of the decided effect of minute traces of various substances it has been found that certain water organisms are destroyed in water contained in a copper vessel, and yet the quantity of copper present is only one part in a 1,000,000,000 parts of water. Such effects are impressive and they are calculated to impress us still more when we contemplate the number of processes going on in the human machine, which are dependent upon the action of small things. The great processes of oxidation depend upon small things; the small amount of hæmoglobin iron in the hæmoglobin probably controls its oxygen carrying property. The minute amount of arsenic and iodine in the thyroid gland probably plays a role of great importance; the enzymes are mighty and the atom also.—*The Lancet*, November 23, 1907.

A SUCCESSFUL METHOD OF TREATING ACUTE AND CHRONIC SUPPURATIVE OTITIS MEDIA AND OTHER FORMS OF OTORRHOEA.—While aural surgeons have been very successful in their treatment of suppurative inflammations of the middle ear, there nevertheless will occur from time to time certain cases which resist ordinary measures. The new method proposed by Blagdon Richards, is therefore, not without practical interest. It consists of introducing into the affected cavity a solution of boric acid of unusual strength. This solution is prepared as follows: Boric acid, one drachm; rectified spirits of wine, 2 or 3 drachms; and glycerin, sufficient to make up one ounce. The originator finds it non-toxic and non-irritating, and says it can be used in chronic cases for long periods of time without any unpleasant effects. Much of its efficiency he believes to be due to its high specific gravity and power of penetration. It flows easily and will readily percolate through a small perforation. Its penetration is greatly aided by its high specific gravity, which is about 1200. This enables it to displace other fluids.

The affected ear is first thoroughly washed out with boric acid solution, one teaspoonful to the pint; after which it is carefully dried, and the concentrated boric acid solution instilled. The head should be kept recumbent for ten minutes to make certain that the medicament has percolated through the various corners and byways of the tympanum. The applications should be made two or three times daily, and should be continued for two or three weeks after disappearance of all discharge. Polypi and granulations when present should be treated by snaring or suitable caustics.

If the treatment fails, as it sometimes will, there need be no hesitancy about advising a radical surgical operation.

The same concentrated boric acid formula may be used in the treatment of acute otitis to prevent infection. It keeps the meatus sterile. Even though the perforation in suppurative otitis media is high up and small, the author's experience teaches him that resolution and healing take place rapidly. The necessity for paracentesis is exceptional. That operation should be resorted to only when there is a bulging drum and great pain, in which case it should be performed under strict antiseptic precautions. In no case has he seen the acute merge into the chronic disease.—*The Lancet*, November 30, 1907.

DECORTICATION OF THE KIDNEYS AND NEPHRECTOMY.—Francesco (*Rif. Med.*), in cases where a nephrectomy becomes necessary, advises decapsulation of the other kidney, if it should happen to be in a state of nephritis. He quotes cases where this has been done with decided benefit to the patient. By decapsulation, he says, he is able to avoid some of the disastrous accidents which occasionally follow nephrectomy, the other kidney being unsound. He advises a double lumbar incision, and says the additional operation does not add to the risk. In all these cases, he prepares the patient beforehand by injecting a couple of hours previously a mixture of scopolamine bromide 1 mg., atropine sulph., 1 mg., and morphine, 1 cg. After this injection, the patient requires very little chloroform, and has less vomiting and distress after the anæsthetic. In illustration of his main contention, he gives details of nephrectomy coupled with decapsulation in cases of calculous and tuberculous nephritis.—*British Medical Journal Supplement*, November 23, 1907.

POTASSIUM PERMANGANATE SOLUTION FOR FISSURE OF THE ANUS.—Schuls (*Journ. de med. de Paris*) commences by placing the patient upon a diet which will make soft stools. This being accomplished, he places the patient in the genu-pectoral position, and asks the patient to make the rectal muscosa project. By separating the folds with the fingers, the fissure is easily detected. In men, the lesion is usually found at the posterior path of the anal orifice; in women on the contrary, it is in the anterior part of the anus. They may be confined to the mucous membrane, but are sometimes prolonged to the skin around the anus. In the latter case the iteguments form a little projection at the level of the fissure, which is often mistaken for a hæmorrhoid. Having located the ulcer, an application is made to the surface of saturated solution of potassium permanganate by means of a small piece of cotton, tightly wound around a probe. It should be applied to the whole length of the fissure, but care should be taken that there should be no excess of caustic to overflow the adjacent tissues. All the fissures are treated at one sitting, each having only one application. This treatment can be repeated daily until cure is complete, which will be in from 11 to 28 seances.—*N. Y. Medical Journal*, December 14, 1907.

ESSENTIAL INSUFFICIENCY OF THE HEART IN CHILDHOOD.—Dr. Arthur Willard Fairbanks believes from a rather large experience that this condition is somewhat common. The symptoms exhibited by the victims include the following: Pain on moderate exertion, referred in the majority of instances to either the right or the left hypochondrium or lower mammary region; sometimes though rarely referred directly to the præcordia, less often to some other portion of the chest, and occasionally in little children, referred to the abdomen; shortness of breath on moderate physical exertion, such as ascending one flight of stairs or a slight ascent; cyanosis under like physical conditions, and sometimes persisting in the intervals between such exertion, especially seen in the lips, face and fingers; and coldness of the hands and feet. Examination of the heart, as a rule, shows nothing abnormal beyond a possibly slight enlargement or dilatation; in some few cases there is irregularity of rhythm and force. Many of these children show a discrepancy between their apparent and

real age, though some show no such deviation. As a rule it is impossible to determine just how long the children have been thus affected. In many instances, there can be no doubt that the cardiac condition has much to do with the undermining of nutrition. Such children at play never exhibit the rosiness of the cheeks of the normal child. The author compares this muscular insufficiency of the heart to muscular deficiency of other portions of the body.

The situation is a serious one because it is neglected, though the lack of vigor is well recognized. Parents and physicians alike hold to the pernicious view that the little one will "grow out of it." The general practitioner is all the more likely to ignore the condition because he finds nothing objectively to account for the evident disturbance of function.

Fairbanks believes that these cases should be treated in exactly the same way as we would adopt in myocardial insufficiency in adult life. The remedies are absolute rest in bed at first; later fresh air, graduated exercises, mild carbonated and saline baths, and resisted movements. The difficulty in enforcing the treatment lies as a rule not with the child but with the superstitions of his parents, who cling too fondly to old lines of therapeutics and to medical fallacies.—*Journal of the American Medical Association*, December 14th, 1907.

TO REMOVE RUST FROM INSTRUMENTS.—*Pharmaceutische Zentralblatt* prints an effective process for removing rust from surgical instruments. The instruments are placed over night in a saturated solution of stannous chloride, which causes the spots to disappear by reduction. The articles are then rinsed in water, laid in a hot solution of soda soap, and dried. It is well to rub them with absolute alcohol and prepared chalk. Another convenient method for removing rust is to lay the instruments in kerosene.

Paraffine oil is the best preservative against rust, and the most convenient way of applying it without getting an unnecessarily thick coating is as follows: One part of the oil is dissolved in 200 parts of benzine, and the objects, after being thoroughly dried and warmed, are plunged into the solution. Instruments with joints, as scissors or needle-holders, are worked in the fluid, so as to cause it to penetrate into all crevices, and the benzine is then allowed to evaporate in a dry room.—*Medical Standard*.

TREATMENT OF BURNS AND SCALDS.—In considering the treatment of burns and scalds, Moran, in the *Virginia Med. Monthly*, advises the free use of morphine to control the pain. He contends that morphine is a stimulant to the vital powers as well as being an analgesic. The relief of shock is an important factor and is to be dealt with in practically the same way as if existing in any other condition. Body temperature is to be retained by the use of stimulants, such as alcohol in the shape of brandy or whisky, local heat and hot drinks.

Where there is great shock and a considerable surface has been burned, then the continuous bath, at a temperature of 110°F. is advisable. The author advises in severe burns that the necessary precautions be taken to prevent deformity. Skin grafting, the use of splints, and massage will all tend to prevent contraction and ankylosis. Moran further urges strict regard for antiseptics and asepsis, for continued suppuration has more than

once been traced to unclean fingers. Vesicles and blebs are to be opened at their basis with a sterile needle, care being taken not to destroy the covering as it serves as a protection and tends to prevent infection. Irrigation with normal salt solution is advised, for the fact that it does not destroy those cells in the process of construction.

For local treatment the author advises the following, poured on gauze, applied to the burned area, which should be renewed daily: Carbolic acid, 1%; balsam of peru 5%, castor oil 94%. On account of the irritation and pain which the majority of antiseptic solutions causes, the author advises against their use, as well contending that they seem to interfere with healing and cause thicker and heavier scars. They are, however, permitted, when the healing process is well advanced. Meat juices and nutritive dressings seem to have a remarkable influence upon cell formation, powders are only to be used after the granulations have become dry and aseptic.

RALPH BERNSTEIN.

THE DEPENDENCE OF ACCOMMODATION AND MOBILITY ON THE REFRACTION OF THE EYE—Herman Knapp, M. D., New York, contends that experience has taught him that the emmetrope sees perfectly at a distance without an effort; while the hyperope has to strain his ciliary muscle to see clearly, even at a distance. Without convex glasses he tires, which causes asthenopia and headache. The myope does not see clearly at a distance without suitable concave glasses. Nearsighted eyes have as a rule exophoria, a hyperope with $+2.00D.$ has to accommodate, i. e., contract his ciliary muscle to the effect of $+2.00D.$ in order to look without a strain in vision at distance. As a nerve impulse is sent into the muscles of accommodation, it will be sent also into the muscle of convergence; for both functions are affected by voluntary muscles which receive the same impulse. When we disrupt the convergence with a vertical prism, the hyperopia remains, and the convergence can be measured by Maddox glass rods, or Stevens photometer; as a result, we find this patient has also about two degrees of esophoria. When now, as a counter test, we hold a $+2D.$ spectacle glass before the patient's eyes, the hyperope of $+2D.$ sees clearly without an accommodative effort, and the esophoria is wanting, but it appears when the plus glass is removed. This shows that the same nerve impulse was sent to the interval recti as well as into the ciliary muscles. In myopic eyes the conditions are the same in character, but with negative glasses. They do not in the author's experience give as uniform results as the hyperopes. The writer claims that plus glasses may do harm if they are too strong, having observed several cases of hyperopes that wore convex glasses and had divergent squint. This disappeared after the glasses were made weaker. The author mentions, to prove that the combined action of muscles of accommodation and the internal recti are excited by one nerve impulse, the Argyle-Robertson pupil, and the effect when both pupils are dilated with atropin. The pupils are dilated, and the accommodation is paralyzed, but not the conveyance. Practically all these experiments have shown that the literophories are not insufficiencies, and that the treatment lies in the spectacle case and rarely only in the operative box.—*Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

A CASE OF MELANOSARCOMA OF THE EYE (PRIMARY) AND OF THE LIVER (SECONDARY). The case reported in which an eye has been removed for melanosaarcoma, and the liver became involved by the same disease nearly two years later. The striking features of the case are given: 1. Failing vision two yars before hepatic involvement. 2. Ocular pain and progressive failing vision one and three-quarters years before hepatic involvement. 3. Clinical diagnosis, glaucoma; pathological diagnosis, melanosaarcoma. 4. Abdominal pain and mass in a patient with extirpated eye; no eye symptoms at this time. 5. No jaundice. 6. No ascites. 7. No hæmatemosis or melanuria. 8. No varicosity of the veins of the abdomen or extremities. 9. No abdominal pains except at very early stage, and though these were severe, they resembled an attack of indigestion. 10. The sudden appearance of the tumor, the rapid development up to a certain size, beyond which it did not go throughout the subsequent cause of the disease. 11. Urine turning black and yielding melanin reaction. The patient died about two and one-quarter years after the onset of the eye symptoms and two and one-half months after onset of abdominal symptoms.—M. I. Schoenberg and C. N. B. Camac, New York. *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

RADIUM THERAPY IN PEDIATRICS AND GYNECOLOGY.—Abbe (Washington) summarizing his article on this subject says: Radium gives the most satisfactory results in the treatment of birthmarks, lupus and keloid. It is helpful in the late cases of cancer of the uterus to palliate some of the symptoms, and may probably be curative in the very early stages. It is the most desirable treatment of inoperable strictures of the rectum and oesophagus, where it gives more comfort to the patient than colostomy or gastrostomy.—*Amer. Jr. Obs.* Vol. 53, 680.

THEODORE J. GRAMM, M. D.

ADHESIONS IN THE ABDOMINAL CAVITY.—Fromme (Halle) has made some experiments on rabbits for the purpose of studying the formation of adhesions after abdominal section. In one series of cases he opened a vessel in the abdomen, permitting a hemorrhage to take place, and without stopping the same, closed the abdomen. In another series, he repeated the procedure, and in addition denuded certain surfaces of peritoneal covering, and likewise closed the abdomen. He found in both of these series, providing the animals did not die of hemorrhage, that adhesions did not form, if no infection was added to the traumatism induced. He concludes that adhesions only arise when germs are present which are capable of inducing an inflammation of portions of the peritoneum with temporary paralysis of some of the intestinal coils. He also says that blood coagula either with or without serosa defects, irritation from antiseptic fluids, and aseptic silk ligatures are not in themselves capable of causing adhesions, but require the presence of germs, as stated.—*Zeitschr. f. Geb. u. Gyn.* Vol. 59, 313.

THEODORE J. GRAMM, M. D.

THE HISTOLOGY OF ENDOMETRITIS.—Schwab (Erlangen). A portion of the usual teaching respecting the pathological histology of endometritis, has not been universally received with confidence. Endometritis glandu-

laris hypertrophica and endometritis glandularis hyperplastica are the forms about which some doubt has long been entertained, for it has been known that these forms have not been commonly associated with other evidences of inflammation. The attention of Schwab has been attracted by some recent articles on this subject, and induced him to re-examine the specimens from forty cases, in which the diagnosis of the above named forms of endometritis was made at the time of the operation. He is inclined to coincide with the newer view that these varieties of endometritis represent premenstrual changes, are not necessarily pathological. Moreover the symptoms of the cases could not with entire confidence be ascribed to the histological changes present in the specimens. He says we may gather from the re-examination of the entire subject of endometritis, that the uterine mucous membrane which undergoes a regular transformation at the time of menstruation, and all the while is ever prepared to assume the entire change into the decidua of pregnancy, is in its formation a changeable structure, all of whose elements with reference to its histological picture may vary up to a certain point without being pathological. Our teaching concerning endometritis, as recognizable from the changes in the mucous membrane, must therefore undergo a certain modification, because our view has been too constricted, and has led to our regarding some membranes as pathological in which normal and physiological conditions were present.—*Zentralbl. f. Gyn.*, 1907, 899.

THEODORE J. GRAMM, M. D.

POST PARTUM CARE.—In commenting upon the attention which the woman should receive after childbirth, Ballery says many of the diseases that the childbearing woman suffers from are due to the negligence of the medical attendant during the three or four weeks immediately following delivery. Lesions of the genital tract, the result of parturition, are overlooked, or, if recognized, are treated as if of slight importance. The vaginal canal is not douched, but the lochial discharge is allowed to become offensive and remain in contact with the solutions of continuity in the cervix uteri, vagina, and perineum. If the woman does not develop acute sepsis from this exposure, she is allowed to leave her bed about the ninth day. She at once assumes the perpendicular position and generally returns at once to her usual occupation. In addition to this she encloses her chest and abdomen in an unyielding cuirass—that abomination known as the corset. In a few weeks or months, her condition is this: The vaginal outlet—owing to the nonunion of the perineal wound—is two or three times its normal size; the vagina has not undergone involution; the uterus is hard and heavy and the cervix is lacerated. As soon as the woman gets on her feet the large, heavy uterus sags down in the pelvis. The uterine ligaments have not yet recovered their tonicity and offer but little resistance to the descent of the uterus, and the relaxed condition of the vagina and loss of the perineal body favor the further prolapse of the organ. If, in addition to this, as is generally the case, she wears a tight corset, and allows her bowels to become constipated, she has done nearly all she could do to bring about complete procidentia of the womb. The soft condition of the uterine muscular fibre, shortly after delivery, favors flexion of the organ whenever any force is applied in such a way as to press the fundus either forward or backwards. If flexion is pro-

duced it induces venous stasis and interferes with the process of involution, and leads to catarrhal endometritis, salpingitis, and chronic invalidism. The attendant should have repaired the laceration of the perineum and vagina and kept the woman in the recumbent posture about four weeks, during which time she should receive three large, hot vaginal douches daily, the laceration of the cervix would have healed perfectly, and the involution of the uterus would have progressed so far that the patient could have assumed the erect posture and engaged in her ordinary occupations without detriment.—*Amer. Jr. Obs.* Vol. 56, 177.

THEODORE J. GRAMM, M. D.

FATTY DEGENERATION OF THE UTERUS IN PREGNANCY.—Ciulla (Genoa) summarizes his article on this subject by saying: From the second month of pregnancy onward there exists a true fatty degeneration of the uterus. This degenerative process affects only the hyperplastic muscular fibres of the pregnant uterus and destroys them and then brings about a fatty infiltration in the hypertrophic fibres, which in this way become reduced in size and return to their normal form and size. The fatty degeneration at the end of pregnancy has a moderating effect upon excessive irritability of the uterine muscle as well during pregnancy as at the time of labor, and therefore from an excessive fatty degeneration we may explain the inactivity at first necessary, and on the other hand by diminished or absent fatty degeneration we may understand the excessive and cramplike contractility during labor. During the puerperal period the same conditions explain the cases of subinvolution, as well as the cases of hyperinvolution. In prolonged pregnancy we may recognize the excessive and too early fatty degeneration as the main etiological cause, and in premature delivery as entire absence of these degenerations may occur. The fat derived from this fatty metamorphosis of the smooth muscular fibres of the pregnant uterus, may contribute to the further growth of the fetus in the latter months of pregnancy, and may serve, by passing through the maternal blood, to form the first reserve to be used by the function of lactation. The fat originating from the active involution processes of the puerperal period is used in lactation.—*Zentralbl. f. Gyn.* 1907, 1109.

THEODORE J. GRAMM, M. D.

THE PHYSICIAN'S SECOND DUTY.—“If the physician's first duty is diagnosis, his second is to know enough of surgical methods and of surgical successes to understand and appreciate what he recommends his patient to submit to. These are essential for the physician whether he be a family practitioner or a hospital consultant, for to him will assuredly come the vast majority of abdominal cases.”—Dr. William Russell (*Lancet*).

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

INSANITY CURED BY A NEW TREATMENT.—Those who are familiar with Dr. Suckling's writings will be quite prepared to learn that the "New Treatment" advocated is the operation of nephropexy. Dr. Suckling believes that the dropping of the kidney causes symptoms in two ways. "First, mechanical, by reaction or pressure on blood vessels, nerves, ureter, colon, stomach, etc., causing gastric and intestinal symptoms, pain, dilatation of the stomach, colitis, ovaritis, and uterine trouble. Second, toxic, through retention of urine, causing insanity, melancholia, mental depression, headaches, and morbid fears." These symptoms are met with both in men and women, and the writer considers that a special type of insanity consisting of mental depression, with delusions and suicidal tendencies is due to the toxic effects produced by the displacement of the kidney. We are all familiar with the fact that displaced kidney may be detected frequently with an entire absence of any of the mental symptoms Dr. Suckling enumerates. We also know that in some neurasthenic conditions the kidney may be displaced, and apparently this displacement gives rise to local symptoms. We know further that not infrequently operation for fixation of the kidney does not relieve either the local or general symptoms, and it will take more than the few cases scantily reported by Dr. Suckling as cured by the operation of nephropexy to convince us of the soundness of his arguments. In the treatment of any morbid condition we should aim at the removal of any and every possible source of peripheral irritation, but until further clinical experience has shown that the operation of nephropexy is invariably followed by the relief of the mental symptoms above described, we shall be disposed to consider Dr. Suckling's thesis as "not proven."—*The American Physician.*

CHIMAPHILA UMBELLATA.—Maurice Worcester Turner, M. D. *Chimaphila umbellata*, the Pipsissewa, Prince's Pine or Ground Holly, which grows in all parts of the United States, Northern Europe and Asia, was proved by Jeanes in 1840, by G. Bute in 1856, and introduced into homœopathic literature by E. M. Hale.

It possesses properties similar to those of its relative, *Chimaphila maculata*, but in greater degree; and is of the same natural order (*Ericaceæ*), but of a different tribe, as Kalm, lat., Led., Rhodo., and *Epigæa repens*,—the last, though unproven, showing in its cured symptoms a remarkable resemblance to *Chimaphila umbellata*.

While *Chimaphila umbellata* has been only partially proved, yet its empirical use by the North American Indians in scrofula, rheumatism and kidney affections has been confirmed; symptoms of the mind and sensorium are altogether wanting; few modalities have been developed, but some are fortunately striking.

General Action: Principally on the kidneys and whole genito-urinary tract, also affecting the lymphatic and mesenteric glands and female mammae, several cures of cancer of the breast being reported. It has been found useful in the cachectic and scrofulous (tubercular) with enlarged lymphatic and mesenteric glands and ulcers of an indolent or flabby character; in constitutions broken down from alcoholics; in hepatic and renal dropsies, especially with weakness and loss of appetite; in mammary tumors (scirrhus); in dysuria and vesical irritation associated or not with gonorrhoea or prostatitis; in urethral stricture; in hysteria; and in plethoric young women with dysuria.

Characteristics:

1. As if a tooth was being gently pulled.
2. Toothache worse after eating and exertion, better by cool water.
3. Aching below right hypochondrium whilst writing.
4. Of swelling in the perinæum as if sitting on a ball.
5. Unable to urinate without standing with feet wide apart and body inclined forward.
6. Fluttering in kidney region.
7. An opening and shutting pain in right thigh.
8. Of a band above left knee.—*The New England Medical Gazette.*

OPTICAL QUACKERY.—An eminent oculist has made the statement that every oculist whether eminent or humble, knows to be true: "No optician ever made a scientifically accurate correction of refraction." He cannot do so even though he be honest and skilled. Did you ever hear of an optician learning to fit glasses from an oculist? One week in an oculist's office would prove to him that no one but a medical man can do refraction work, and if he had the least spark of conscience he would never assume to fit lenses on old or young.—*H. W. Champlin, in Med. World.*

DOCTORS AS COOKS.—Dr. Wilhelm Sternberg, a leading Berlin specialist, has launched a campaign in favor of including a course of cooking in the training of physicians and surgeons. He asserts that many doctors are in the habit of prescribing a diet for their patients with regard only to the chemical ingredients thereof, forgetting that it is not the nourishing qualities which the food contains, but the relish wherewith it is eaten which is the all-important healing feature. Physicians and surgeons, therefore, in Dr. Sternberg's opinion, should receive practical instruction in the culinary art, so that they may recommend not only the strength of building-up food but food that tastes good when well-cooked, and, through being keenly appetizing, assists the process of recovery.—*Medical Counselor.*

HAY FEVER TREATMENT.—Curtis, in an article in the *Journal of the American Medical Association* of July 13, 1907, says that a careful study of the facts at his disposal leads him to the following conclusions:

1. Hay fever is a disorder amenable to no specific treatment.
2. The number of cases of hyperesthetic rhinitis from other causes than ragweed and other pollens is about one-third of the total number.
3. About one-third of the cases supposed to be due to pollen reaction may be relieved by constitutional and surgical methods of treatment. Predisposition to attack in these cases being due to definite causes, the author suggests the theory that induced enervation of the sympathetic is an important etiologic factor.
4. Primary intoxications may take place from pollen toxins in cases in which the sympathetic system apparently is not previously enervated. These cases, theoretically, should react to antitoxin treatment.
5. The consensus of opinion to-day is against the claims made for pol-lantin, though observers who have been instructed personally by Professor Dunbar indorse unqualifiedly the great benefit to be derived from the treatment.
6. Medically the suprarenal capsule products hold the first place to-day in the treatment of hyperesthetic rhinitis.
7. The constitutional treatment as an adjunct to any local application is of supreme importance.
8. The best of all treatments yet found is the climatic, with previous attention to nasal conditions.

ADENOIDS IN YOUNG INFANTS are far more common than the general practitioners or even the laryngologists have supposed, and the evil results which they produce are greater in infancy than in childhood. On account of the small size of the superior pharynx and postnasal opening even a small amount of adenoid can cause marked obstruction in nasal respiration. Rickets is especially prone to develop in these cases, and considerable deformities of the chest are sometimes produced.

They are one of the commonest, if not the most common, cause of chronic "snuffles" in infancy. They are always present in those babies that are subject to frequent colds in the head. The fact that the baby does not keep its mouth open or snore at night or have the typical facies of adenoid in later childhood should not allow one to overlook the adenoid symptoms, but be on the lookout for them when they are present, since the frequent colds and chronic snuffles are almost as suggestive and characteristic of adenoids in infancy as these more marked symptoms are in childhood. Adenoids should always also be thought of when babies sleep poorly.—*The Hom. E., E. and T. Journal.*

[Determine the exact symptoms coincident with the existence of adenoids, and you will be able to do with your homœopathic remedy much more for the child than to banish the obstructive tumors.]

HOMŒOPATHY AND VIVISECTION— The reason why the homœopathist is able to dispense with all the frightful vivisections that have been committed in the name of pharmacology is that he takes an entirely different view of the problem. In the first place, he does not regard his patients as so many samples of the various diseases but as diseased individuals. Sir William Gull used to say, "Never forget that it is not a pneumonia but a pneumonic man who is your patient; not a typhoid fever but a typhoid man." It is a pity Sir William Gull's disciples have not taken

more heed to his words; but it is not at all easy to do this practically unless one has the help of Hahnemann in doing it. Hahnemann talked in exactly the same way long before Sir William Gull. But Hahnemann did more—he presented the world with a method of treatment based on a principle which recognizes this very obvious fact. In this way he liberated the medical practitioner from the necessity of being enslaved by the idea that we have to deal with abstract diseases.

If we regard diseases (as the allopaths do regard them—in spite of Sir William Gull and a few others) as being entities, it follows that we must have remedies for diseases rather than for diseased patients. Then begins the search for specifics for these diseases, and practice becomes a matter of labeling the patient with the name of his disease and prescribing the treatment for the disease irrespective of the patient. An incredible number of animals have been put to torture to discover the pathology of diseases and the pharmacology of drugs. Hahnemann was able to spell out the language of drug action by the symptoms they produced in his own healthy body and in the bodies of his helpers.

The homœopathist does not trouble himself about specifics for diseases. Hahnemann has given him a system whereby he can discover a specific for any patient. The data are afforded by intelligent human beings who have volunteered to make the experiments on themselves. The necessity for intelligent human experimenters lies in the fact that subjective sensations and conditions of sensations are of supreme importance, and these can only be properly explained by those who experience and have the power to describe them. In experiments on animals these can only be vaguely inferred, even if they are made on animals in normal conditions and not under the abnormal conditions of vivisection.

Dr. Burford was quite right in refusing to deny that useful information might come from experiments on animals, just as useful information has come from poisonings of animals and of human beings in criminal and accidental cases. But the value of these is infinitesimal compared with the others, and homœopathy would not seriously miss them if debarred from the results they have given. But this does not imply that homœopaths have no right to make use of them. Dr. Burford put this point very well in answer to a question by Sir Mackenzie Chalmers, who asked if we were not bound to avail ourselves of what has been done in the past? "There is no earthly reason why we should not," said Dr. Burford. "We still use rubber although it comes from the Congo." But Dr. Burford was able to make it plain to the Commissioners that homœopathy could do very well without vivisection, and still be able to practice the art of medicine in a perfectly scientific way. . . .

Dr. Burford's evidence and the questions put to him have provided a splendid demonstration of the work homœopaths have still to do in clearing the Augean stable of medicine of effete ideas; and it has shown the anti-vivisectionists why homœopaths are so frequently their allies. This is one aspect of the work homœopathy is doing and is bound to do in the higher evolution of the race. The crude materialistic phase of mentality from which the world is now emerging has had its power broken by the leaders of physical science themselves. But much remains to be accomplished yet, and in the realm of drug-giving the genius of Hahnemann has yet to accomplish through the energy of his followers an enormous civiliz-

ing and spiritualizing work. When this has been brought about the horrors of the vivisection table will be simply unthinkable and impossible.—*Homœopathic World.*

SCHOOL OPENS.—The summer has officially passed, though the hot weather remains with us; vacation has ended, the straw hat must be discarded and we must turn our attention now to work. This applies with much dissatisfaction to the school boy and the school girl. We live in an age when more and more must be accomplished and therefore the vacation for the boy and the girl as well as the professional and business man must be shortened each year. We are clamoring all the time for a simpler life and yet we are making it more complex all the time because we don't know how to stop.

Sympathy certainly should be extended to the school child, who is given less of the vacation blessings each year, and whose brain cells are taxed to the point of collapse, if not confusion, by the increased demands of school work. As in the business world we are calling for more strain and greater accomplishment, so in the scholastic world we are forcing the young minds to do an unparalleled amount of work, and what for?

Does anyone in sober thought think these demands are necessary and compatible with health? Are we not in fact stunting the health of our boys and girls by cramming their heads with so much untenable and uncalled for stuff that we call knowledge? We have learned that too much wealth is often harmful, and sometime we may learn that too much "knowledge" may be similarly designated. How many young men come out of college with a lot of intellectual pyrotechnics which only make a fuss and noise in life's firmament later. Then why it is not possible to prune and trim these extraordinary demands on the young people's energies? Some Moses should rise and smite this rock of eternal study of unnecessary things. We have too many impractical teachers whose love of educational fads urge them to force students into an extreme of intellectual pursuit, the fruits of which are often not worth the gathering. The head was never intended for an encyclopedia of worthless knowledge; mental training should point to a practical result, and this should be the constant aim of a teacher. Store houses may be filled beyond their capacity and strength; the same is true of the modern trend in education for the sake of health and the mind as well. . . .

In no sense is it our object to decry the advantage of higher education, but we do claim that it pertains too much to the non-essentials, and the requirements of students to-day are beyond their physical endurance and in many respects impractical. This is also true of our medical schools; while we are striving with all our might to develop and inculcate the modern scientific principles, we are perhaps making poor doctors; it is possible to be so scientific that we cannot cure the sick; we are making diagnosticians who can see the scientific side of the question and overlook the environments of the disease; we may possibly forget "*tolle causam*," which means more than the infectious germ. In our laboratories and our didactic work our special enthusiasm for detail study may leave the student's mind so befogged and crammed with unnecessary detail that he will be lacking in the kind of medical education which makes a successful physician.—*The Clinique.*

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

Dr. Lambrechts, of Antwerp, reports in the *Journal Belge d'Homœopathie*, November 5, 1907, two highly interesting cases of adenoid vegetation, which were cured by a combined local and internal homœopathic treatment. He reports as follows: On the 31st of October, 1905, I was called to treat a child six years old, affected with adenoid growth. The mother had consulted several specialists of Antwerp and Brussels, and all had advised the immediate extirpation of the tumors, but before resorting to such extreme means she decided to try homœopathic treatment.

The little patient was not well developed for her age; she was pale, anæmic, and of decided lymphatic temperament. For some months she had been tormented by a spasmodic cough, with nocturnal aggravation, against which the whole allopathic armamentarium had been employed. Both nares were nearly completely obstructed and full of thick, yellow mucus. She had always the mouth half open, what gave her the characteristic aspect of those suffering from adenoids. She slept with the mouth open and her snoring was very loud. The tonsils were slightly hypertrophied. Digital examination readily revealed, behind the palate, the presence of a soft tumor of the size of a hazel nut.

Internally I prescribed calc. phos. 6, kali bichr. 6, and mercur. iodat, 6, and locally, I successively applied, as stated above, nasal tampons previously immersed in a glycerole of hydrastis. At the end of a week of this treatment, the mother came joyfully to announce the marked improvement in the state of her daughter. In fact, the nares had become permeable to air, and the nocturnal snoring had ceased. The same treatment was continued till the 13th of December, and at that time the child could be considered cured. The adenoids were no longer perceptible to the finger, the cough had entirely ceased and the air penetrated freely through the nares. I saw again the child some time ago, and she was then strong and hearty; the colors had returned and had passed two winters without taking the least cold.

A first cousin of the above little patient was at that time under the care of a Paris specialist for the same affection. She was suffering besides from a purulent discharge of the left ear. The attending physician was waiting for the cure of the otorrhea to proceed with the extirpation of the adenoids. Her mother, apprised of the cure of her niece, came to consult me on the 3rd of February, 1906, and begged me to treat her daughter. She was a child 7 years old, very delicate, pale and lymphatic. She was suffering from a nasal catarrh which almost obstructed her breathing by the nose. The discharge from the ear, a few weeks old, had been treated with injections of oxygenated water. The tonsils were pretty well enlarged. As internal remedies she received pulsat. 3, calcar. phos., 6, and kali bichrom. 6, and the injections of oxygenated water were re-

placed by insufflations of finely powdered boracic acid, which I think gives better results than the liquid injections, for frequently they have the effect of irritating the membrane of the drum. The local treatment was that of the preceding case, and when after ten days the little patient called at my office, I could notice a marked improvement of both nasal and ear trouble. The discharge from the ear had completely ceased and turned into a slight flow of a serous liquid. She was then breathing well through the nose and could sleep with the mouth closed. On the 28th of March the vegetations could no longer be detected by touch, and as the little patient was in a very satisfactory condition, she returned to Paris.

From letters received since, I learned that she visited the specialist in whose care she has been, and who, surprised at the change, inquired as to the treatment she had received. This gentleman, after being satisfactorily informed, declared that he did not know the treatment, but that he would make a good record of it.

E. FORNIAS, M. D.

WHOOPIING COUGH.—Dr. Simon, of France, has had the best results from *drosera*, *belladonna*, *cina*, *veratrum*, *cuprum* and *corallium*. *Justitia adhatoda*, introduced by Dr. Sarat Chandra. Those seem to be called to take an important place in the treatment of this affection. Dr. Jousset, Sr., insists on two points:

1. The necessity of employing the smaller doses, as the lower dilutions often give aggravations. Give the 6c and the 12c, but never come down to the mother tincture, especially with *drosera*.

2. Keep child in the room during the whole disease.—*Revue Homœopathique Française*.

E. FORNIAS, M. D.

SEA-SICKNESS AND ITS SPECIFIC, PREVENTIVE AND CURATIVE TREATMENT.—By Dr. Flasschoen, of Paris. The preventive and curative remedy given for sea-sickness, is delphinin, the active principle of *delphinium staphisagria*, which dynamically at certain doses, produces on the healthy subject, symptoms entirely similar to those observed in sea-sickness. He does not mention doses, contenting himself by declaring they should be smaller than those provoking on the healthy man the symptoms of sea-sickness. After describing the symptomatology, forms and varieties, causes, duration, complications, pathogenesis, and treatment of this trouble, the author, in order to commend the truth of the law of similars, demonstrates that the specificity of *cinchona* in intermittent fever, of *mercury* in syphilis, of *digitalis* in asystolia, is due to their homœopathicity. He mentions the opinions of the highest observers as to their physiological action. The law of similars is seen still verified in the action of mineral waters, in the treatment of rabies, of snake bites, and the author makes very conclusive citations on the subject. This doctrinal part forms the most important part and not the least interesting of this publication; it shows that all the medical innovations elevate the law of similitude, whose value becomes less and less contestable every day.—*Journal Belge d'Homœopathie*.

E. FORNIAS, M. D.

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CHLORIDES IN THE URINE.

BY JOSEPH C. GUERNSEY, A. M., M. D., PHILADELPHIA, PA.

(Read before the Clinico-Pathological Society.)

CHLORINE appears in the urine chiefly as Sodium Chloride (salt) and, next to urea, forms its chief solid constituent. The amount of chlorides excreted by the kidneys in a healthy person is from 10 to 16 or 20 grammes in 24 hours and they appear in the perspiration, saliva, bile and feces, as well as in the urine. An elimination of from 10 to 15 grammes daily indicates a fair condition of appetite and digestion.

The normal excretion of the chlorides depends upon the character and quality of one's food—where much salt is eaten the chlorides are correspondingly increased.

Clinically the output of the chlorides is as follows:

They are *diminished* in all acute febrile conditions especially if accompanied by serous exudations or transudations as dropsy, vomiting, diarrhoea. Generally there is a constant decrease of the chlorides until the "crisis" of the disease after which they gradually increase and this increase, if continued, may always be regarded as a favorable sign. In pneumonia the chlorides may disappear entirely from the urine and their absence indicates grave danger to the patient. There is a decrease in the chlorides if the amount of one's nourishment is diminished and if this be carried to the point of starvation they disappear almost entirely. They are much

diminished in acute articular rheumatism and are also diminished (and may be wholly absent) in cholera, pyemia, puerperal fever. They are diminished in acute and chronic diseases of the kidneys with albuminuria and dropsy and in practically all chronic diseases especially when the chronic disease is associated with impaired digestion or feeble appetite.

The amount of chlorides is an essential factor in the differential diagnosis of acute meningitis and typhoid fever because in the former there is a marked diminution while in the latter they are but moderately diminished.

Chlorides are found in *increased* amount in all conditions in which retention has previously occurred, chief among these being the *acute febrile diseases and cases in which a resorption of *exudates and *transudates, associated with an increased diuresis, is taking place.

A marked increase has also been noted in some cases of diabetes insipidus. A continued elimination of more than 15 to 20 grammes, all other causes producing such an increase being excluded, may be considered as pathognomonic of diabetes insipidus. (Simon, page 263). In diabetes insipidus, the increase of chlorine, which may reach 30 grammes or more, is obtained at the expense of the body fluids and is associated with marked emaciation. An increased elimination of chlorides occurring in cases of oedema and associated with the existence of serous exudates, is always of good prognostic significance, pointing to a resorption of the fluid.

In cases of general paralysis during the first stage there is an increased elimination with an increased ingestion of food.

In epilepsy the polyuria following the attacks is associated with an increase in the chlorides.

Of drugs, certain diuretics and some of the potassium salts, produce an increase. The chlorine contained in chloroform, whether administered internally or as an anaesthetic, is in part excreted in the form of a chloride.

The chlorides are increased :

- a. When much salt is ingested.
- b. After active bodily or mental exercise.
- c. During a malarial chill.
- d. In diabetes insipidus.
- e. When dropsies are removed by diuresis.

*As stated above.

- f. An increase may occur in prurigo.
- g. During convalescence, if the appetite is good.

DISCUSSION OF DR. GUERNSEY'S ARTICLE BY DR. VAN BAUN.

Practical papers like the one Dr. Guernsey has just read are invaluable. He has presented in a few well chosen words, all the data on the subject which can pass muster, and we can review and compare it with our own clinical experience, confirming or rejecting as we see fit. In the stress of practice we form the habit of routine grouping of clinical facts and if we were asked offhand, "What is the significance of absence of chlorides in the urine?" we would all respond, pneumonia, dropsy or starvation.

In early October I attended a vivacious old lady of 85 years, mentally bright. She had been in unusual good health all summer. She had symptoms of a cold, a troublesome cough and some indigestion. The weather being damp and cold, she remained in her room.

A week later she had an acute attack of palpitation, followed by headache, nausea, vomiting, and two or three loose bowel movements, and soon became very drowsy, which continued. An examination of her urine showed 23 ounces in 24 hours, specific gravity, 1012, normal reaction. Total solids, 2.7%; urea, 2%; acetone present; total absence of chlorides. All else negative.

As she had been carefully fed, and there being no dropsy, pneumonia was suspected, but at no time during the course of her illness was there lung involvement. She slowly recovered her usual good physical health.

In two weeks the chlorides, which were absent, were fully re-established. There was a barely perceptible trace of albumin, which continues. In other respects her urine is normal.

Her drowsiness disappeared slowly, and was followed by a marked change in her mentality. She became childish, rambling, often incoherent, at times irritable and hard to control. This mental condition while improving slowly, still continues.

CONGENITAL DISLOCATION OF HIP.

BY W. NELSON HAMMOND, M. D.

(Assistant Surgeon to the Hahnemann Hospital, Chief of the Orthopedic Clinic of the Hahnemann Hospital Dispensary, and Lecturer on Orthopedic Surgery in the Hahnemann Medical College.)

(Read before the Clinico-Pathological Society.)

PROFESSOR LORENZ's visit to this country resulted in giving a great impetus to the study of this distressing deformity, and so awakened the interest of the general public that many latent cases were discovered. In consequence, many cases are now brought for treatment at an early age when operation can be most successfully performed.

While reduction of the deformity had been practiced by



RADIOGRAPH No. 1.—Congenital dislocation of the hip in a girl twenty months of age. Note how little the head of the femur is displaced as compared to radiograph No. 7 of a boy fourteen years of age. The reduction was performed very easily in this case because of the early age of the patient.



RADIOGRAPH No. 2.—Unilateral congenital dislocation of the hip in a boy $3\frac{1}{2}$ years of age. Note the lack of full development of the neck and head of the femur. The acetabulum is seen to be very little distorted when compared with radiograph No. 7.

American surgeons before, the stimulus given to investigation by Professor Lorenz led to a careful review of cases treated here and abroad and much valuable data has been gathered.

This deformity is one of the most common of congenital dislocations; it occurs more often in girls, and is bilateral in about 36 per cent. of cases.

The head of the femur, instead of being in the acetabulum, is behind, above, or in front; and, though often only slightly displaced at birth, tends to increase each year, until in some cases the trochanter is in line with the anterior iliac spine.

When the displaced head is found in front of the acetabulum there is very little deformity or disability, this position being functionally so satisfactory that in intractable posterior dislocations, the surgeon sometimes purposely changes it to the anterior or sub-spinous position. This is only in such cases where the normal reduction cannot be performed, and the method is called transposition.

The changes associated with the deformity are usually accommodative and increase with age. In our experience the head of the femur has been more distorted than the acetabulum. The ligamentum teres in children is usually elongated, and in older patients may be absent. The acetabulum is triangular in shape, is shallower than the normal, and is later made more so by deposits of fat and connective tissue. The head of the femur is usually undersized and conical in shape and the angle of the femoral neck is often irregular and the neck shortened. Secondary changes take place in the processes of the pelvis, which are more noticeable in the unilateral cases, and spinal curvature may be present, caused by the tilted pelvis.

The capsule of the joint is stretched, and in old cases may be constricted at a point between the acetabulum and the displaced head, and forms a serious obstacle to successful reduction. The long muscles of the thigh are shortened and adoptative changes occur in those attached to the trochanter.

The cause of this deformity is not thoroughly understood; there is a lack of full development of the parts; whether this is because of the femoral head being misplaced and not acting as a normal stimulus, or a primary condition of imperfect development which allows the head to slip out of the acetabulum, is not yet determined, though we think that now the consensus of opinion is that it is caused by faulty position maintained while *in utero*, just as club-foot deformity may arise.



RADIOGRAPH NO. 3.—Taken directly after manipulative reduction (see radiograph No. 2). The leg is in the position of abduction, flexion and external rotation.



RADIOGRAPH NO. 4 of a case taken three years after a manipulative reduction of a dislocated hip on the right side. Note how the head and neck of the femur have developed as compared to radiographs Nos. 2 and 3, taken just before and at the time of operation. Patient was a boy three and one-half years of age. At this time, six and one-half years of age, function is perfect.

With a little observation the diagnosis can easily be made. The symptoms are more prominent in bilateral dislocation; the child commences to walk later than usual, and his gait is unsteady and wobbly, with legs generally spread apart. In certain exaggerated cases, with much adduction, the legs are crossed. The trochanters are found above Nelaton's test line. Marked lordosis is present. The arc of rotation of the trochanter is increased and represents the free movement of the head in its false position. Palpation anteriorly over the joint shows the head to be absent; otherwise the child is ordinarily well-nourished and developed.

In the unilateral dislocation there are: Slight lordosis, perceptible limp, the pelvis is tilted, and the range of abduction is limited; the leg is shorter on the affected side, Bryant's triangle is lessened, the buttock flattened, there is abnormal mobility of the head and Trendelenberg's sign is present.

The deformity without treatment generally increases with age; in very rare instances it improves.

In the management of these cases, age and the character of the displacement are important. The best time for treatment, especially by the manipulative (bloodless) reduction, is in early childhood, between two and three years of age, as the head at this time lies near the socket which is deeper and more normal. (See radiograph No. 1.) The capsule is less stretched and thickened and not so likely to be strictured. The muscles also are weaker and there are not so many accommodative changes to overcome.

While the reduction has been practiced on children as young as nine months, it is best to wait until the child's habits of cleanliness have been formed, and more important still, it should be able to walk so as to insure the permanency of the reduction by weight bearing on the affected side.

Lorenz has put the age limit in unilateral cases at nine and in bilateral at seven years.

Successful cures are reported in patients of eleven, thirteen and fifteen years of age, but the danger of relapse is greater because of the secondary changes that have taken place from year to year.

Professor Lorenz reports 52 per cent. of anatomical cures by his method, that is where the head of the femur has been placed and has remained in the acetabulum. From a func-

tional view-point the percentage is higher—about 80 per cent. of cures. This includes cases where the transposition method was used.

In many cases the primary reduction is successful; we can only determine the permanency of the joint, however, some time after the cast has been removed, as occasionally the head



RADIOGRAPH No. 6.—Taken immediately after reduction. This patient, a girl of thirteen years of age, has been out of the case for three months and under gentle massage and exercises the leg is gradually assuming its normal position.

luxates again to the old position, though careful after-treatment lessens this tendency.

The disadvantages of the manipulative method—the danger of tearing vessels, breaking the bones, peripheral neuritis—while still present, has been greatly minimized by more careful technique. A very important one remains in that it

is impossible to explore the acetabulum and capsule, though radiography has been of some service here.

In the cases beyond the age limit, the open method, as devised by Hoffa, can be followed. It is well in these cases first to try reduction by manipulation, and, failing in one attempt, to make another in a short time; in the meantime holding whatever correction is gained by means of a plaster-of-paris bandage. It frequently happens that in the second attempt the reduction can be made. Shantz reports a case reduced in



RADIOGRAPH NO. 7.—Unilateral congenital dislocation of the hip in a boy fourteen years of age. Note the distortion of the head and neck of the femur and the under-size of the upper portion of the thigh. The head is displaced upward above the plane of the superior iliac spines. The acetabulum is very small and much distorted. Its shallowness and triangular shape are well shown.

this manner in a patient of fifteen years; and this method was used in one of the cases, a girl thirteen years old, reported in this paper. If this treatment proves ineffectual, we have at least prepared the way for an easy open reduction.

The cases I have to report are all unilateral dislocations, the patients being three girls and two boys, aged as follows: 20 months; 2, $3\frac{1}{2}$, 13 and 14 years. Three were operated upon by the method elaborated by Lorenz, as follows: After the patient was thoroughly etherized, an assistant fixed the pelvis with his hands. An attempt was made to break down



PHOTO A.—Congenital dislocation of right hip, in a girl thirteen years of age. Note the tilting of the pelvis and secondary lateral curving of the spine. The dislocation was reduced by manipulation.



PHOTO B.—Congenital dislocation of right hip, girl thirteen years of age. Note the shortening of the limb. The head of the femur is above the plane of the anterior iliac spines. The leg on the normal side must be bent to accommodate for the shortening of the opposite leg.



PHOTO C.—Congenital dislocation of left hip, boy fourteen years of age. Trendelenberg's Sign: Note the dropping of the normal hip when the weight is borne by the affected side. A test of value in differentiation from coxa varu.

the adductor resistance by forcible abduction and beating upon the tense muscles with the ulnar side of the hand; next, by hyperflexion of the thigh with the leg extended, the posterior muscles were lengthened. The tissues in front of the joint were stretched by placing the child on its side and hyperextending the leg; then, by fixing the pelvis and making counter traction with a folded sheet pulling against the perineum, extension was made; and reduction was accomplished by abducting the leg and using a wedge-shaped block as a fulcrum placed under the trochanter. The head was then rotated in various directions to enlarge the joint, and the thigh and pelvis fixed in plaster-of-paris, after placing the leg in right-angled flexion, abduction and external rotation.

In two of these cases the results are anatomical successes after two and three years observation; the third, a girl of twenty months, is still wearing the cast; the radiograph, taken with the cast in place, confirmed the physical findings at the time of reduction—that the head was reduced—and, judging from the appearance of the acetabulum in the radiograph, we believe the operation will be a success.

In the fourth case, a girl of 13 years, the attempt at reduction was made as an experiment, which, if it failed, was to be followed by an open operation. The same method was employed against much greater resistance, and was carried out in two tempos. At the first, the head was brought to the brim of the acetabulum and fixed in its new position by plaster-of-paris. At the end of three weeks another effort was made. At this time the structures were less resistant and reduction was accomplished. For two weeks there were some swelling and ecchymosis about the anterior and inner side of the thigh. and numbness of the leg, which gradually disappeared; at the end of six months the cast was removed and a radiograph showed the head reduced. (See radiograph No. 6.) It has been a month since the removal of the cast and the leg, which was held in abduction and flexion by the shortened pelvi-trochanteric muscles, is gradually improving under exercise and gentle massage.

The fifth case, a boy 14 years of age, I report chiefly to emphasize the marked changes found in advanced cases. The leg is shortened 4 inches, he has a very awkward limp, the pelvis is tilted and abduction is limited. The accompanying radiograph (No. 7) shows the very much undeveloped and

distorted acetabulum and femur. An effort will be made to reduce the dislocation by manipulation; if, after two or three attempts during six or eight weeks, it is impossible, the open operation will be resorted to.

In these cases the casts were worn the full six months, and in one, longer. It is sometimes possible to change the cast at the end of three months to an easier position, but this should not be done except where the conditions are particularly favorable for reduction and retention, as it is the maintenance of the primary position that insures the establishment of a joint with least tendency to relapse. In the after-treatment this position should be gradually corrected by lessening the height of the high shoe, gentle massage and, if necessary, a girdle and gaiter. It should always be possible to put the leg in the primary position at any time during the after-treatment if a relapse is imminent. In certain resistant cases it may be necessary to forcibly correct this position, or perform a sub-trochanteric osteotomy, but only after a sufficient time has elapsed to insure the stability of the joint.

The accompanying radiographs as well as the clinical experience of these cases show that reduction is most easily accomplished at an early age, just after the child begins to walk, and that permanent success at this time is most likely to follow because of the minimum amount of displacement and distortion.

DISCUSSION OF DR. HAMMOND'S PAPER BY H. L. NORTROP, M. D.

There is probably no one here to-night more interested in this subject of congenital hip-joint dislocation or more appreciative of Dr. Hammond's excellent paper than I. When we consider the physical deformity, the unsightly limp or characteristic waddle and the serious physical handicap under which the patient labors, we can truly appreciate the valuable services rendered by successful treatment of these cases. I have in mind now a little girl who had unilateral hip-joint dislocation which was reduced by Dr. Hammond, where the result is very satisfactory and the child's outlook for becoming a useful member of society and a wage-earner is the best. I happen to know that she is a member of a poverty-stricken family and were it not for the successful treatment given to her serious deformity she would probably have grown up quite incapacitated to aid in supporting her widowed mother and her younger sister and so I say, it is a good work, well done, when we can put these afflicted children in a condition to grapple successfully with the problems of life.

I would call your particular attention to the characteristic symptoms of this deformity already enumerated by Dr. Hammond, viz: the lordosis, the flattening of the buttock, the prominence of the trochanter major, the

absence of the head of the femur when sought for in front and the shortening and limp if the case is a unilateral one, or the peculiar waddle if bilateral.

Let us not for a moment think that the Lorenz method is in every sense a bloodless one. When we consider the amount of force necessary to overcome the shortening of the various structures about the hip, and that the shortening and contraction are overcome at one sitting, we must acknowledge that at least many small vessels are ruptured and this is frequently proven by extensive extravasation of blood which appears beneath the skin or in the shape of hæmatomata. While sufficient forced manipulation to bring about a reposition of the head of the femur is necessary, the operator should exercise care and judgment in this matter and apply the minimum amount of requisite force.

CLINICAL AND POST-MORTEM FINDINGS OF AN UNUSUAL CASE.

BY H. L. NORTHROP, M. D., PHILADELPHIA, PA.

(Read before the Clinico-Pathological Society.)

Miss A. J., age 22 years, lived in Medford, N. J., and enjoyed perfect health. In company with her cousin, Miss G., and Dr. Lincoln, Miss G.'s fiancé, she drove by automobile from Philadelphia to Portland, Me., and back. Dr. Lincoln insisted upon the ladies eating carefully and partaking of plain, simple food, and drinking nothing but Apollinaris water and coffee on the entire trip. No physical indisposition occurred to mar the health of the party until they left New York to return to Philadelphia, when both of the ladies, without any discoverable or remembered cause, developed abdominal pain and diarrhoea. These symptoms came on suddenly, but were not severe, and did not particularly disturb the members of the party or interrupt the drive home. Upon reaching Medford Miss G. consulted Dr. Van Derveer, of Mt. Holly, who administered a liberal dose of calomel with the desired effect, and her gastro-intestinal symptoms promptly disappeared. Miss J. was treated by an allopathic physician who made a diagnosis of mumps because of a bilateral swelling of the cervical lymphatic nodes. This swelling soon subsided and after several days of uncertainty he ventured a diagnosis of typhoid fever. The young lady's symptoms were those of intestinal irritation, viz., discomfort and pain, slight vomiting, diarrhoea and several chills. All of this time, which covered

a period of three weeks, she was up and around, more or less active, although not feeling well. Believing that she was well enough to keep a promised engagement, one day she went to Germantown and served as bridesmaid at a wedding; the next day she was considerably worse and in six days she was a corpse.

Two days before she died I was called in consultation, with the following result: A young lady, perfectly rational, after smiling and recognizing me and alluding to the fact that she had seen me at the shore during the past summer, became quite hysterical, giggled and sobbed. Her facial expression was very good, that of a patient who had been ill with only an ordinary and not particularly severe malady; her face was not heavy, or besotted, did not present a typhoid appearance, nor was it pinched and drawn. Her tongue was only very moderately dry and nearly perfectly clean; her breath was not offensive; and there were no sordes on her teeth. There was no subsultus tendinum. My examination of her chest was entirely negative; her heart sounds were good, smooth and distinct. Upon examining her abdomen I discovered very slight tenderness to the left of the umbilicus, with a still less degree of tenderness in the right lower quadrant. There was no abdominal rigidity nor distention. There was no tenderness in the region of the spleen, but percussion showed it to be slightly enlarged. There were no other abnormal physical signs in any part of the body. There neither was, nor had there been, any rose-colored eruption.

A peculiar and noteworthy feature of this case was the sudden and extensive variations of temperature, as indicated by the accompanying diagrams and table. By them you will see that the temperature presented nothing characteristic of typhoid fever whatever, but more closely resembled the temperature one would expect to find in a case of poisoning, an autointoxication, perhaps, where the cause or source of the poison still existed and fresh absorptions of septic material occurred at frequent and irregular intervals, explosions, as it were, the systemic effect of which was indicated by the variable temperature line. This theory would have been enhanced, of course, if our patient had had jaundice, repeated chills and hepatic tenderness, suggestive of a pyelophlebitis; the fact remains that none of these symptoms was present.

Drs. Van Derveer and Lincoln and I discussed this case very carefully and went over the question of diagnosis thoroughly. The other two medical gentlemen accepted my conclusion that the girl was suffering from a pyaemia secondary to ptomaine poisoning, and we governed ourselves accordingly in our treatment of the case.

In forty-eight hours I was hurriedly called to Medford and arrived in time to see Miss J. die. Later that same day I again repaired to Medford and made an autopsy of the abdomen. I examined every abdominal and pelvic organ carefully and found lesions as follows: The spleen was somewhat enlarged and measured seven inches from superior to inferior pole; (the usual length is five inches); the ilium (the lower part, particularly) presented numerous and marked hypertrophies of the intestinal lymphatic nodes, as may be well seen in Dr. Sappington's mounted specimen and sections; the lymphatic enlargements involved the mesenteric glands also. There was no evidence of ulceration, perforation or peritonitis. Dr. Sappington's report upon the ilium and caecum, which I removed, should now be presented.

DR. SAPPINGTON'S REPORT:

THE specimen consisted of about 30 cm. of small bowel and 10 cm. of large bowel, both unopened. Externally, there was no evidence of abnormality. On opening the small intestine, there was noted very marked enlargement of the lymphoid structures. The solitary glands and Peyer's patches projected everywhere above the level of the rest of the mucous membrane. The solitary glands, by virtue of their enlargement appeared very numerous and in some parts of the gut were not more than 5 mm. apart. These little elevations measured from 1 to 3 mm. in diameter and 1 to 2 mm. in height. The enlargement of Peyer's patches became progressively greater as the lower end of the ileum was approached and at the ileo-caecal junction the swelling was so great as to almost cause a stenosis of this portion of the gut. The follicle at the lower end of the ileum projected .5 cm. above the rest of the mucous membrane. The measurement of several other patches was as follows: 5x3.5x.4 cm.; 4.5x2.3x.2 cm.; 3x1.8x.3 cm. The enlargement of the lymphoid structures was almost as great, especially as regards the solitary

glands, at the upper end of the ileum as at the caecal portion. The enlargement was apparently a pure hyperplasia. No ulceration could be detected grossly. On cutting portions of the gut, the little swellings could be shelled as nodes from the mucosa. A number of these as well as portions of intestine in various areas were taken for microscopic examination.

The most striking feature of the microscopic picture was the relative uniformity of all sections whether of the gut, the lymphoid nodules, the mesenteric nodes or the appendix vermiformis. Sections from all of these parts exhibited a most remarkable proliferation of endothelial cells. These cells invaded the mucosa and submucosa to the exclusion of almost all other structures. The epithelial layer had largely disappeared and from here to the muscular layer there was one mass of endothelial cells. This occurred not only in the region of the solitary node and Peyer's patches but in the other portions of the intestinal mucous membrane. Collections of lymphocytes were scanty though single cells were scattered through the field. Just above the muscular layer there was seen in a number of areas deposits of fibrin. That these endothelial cells were phagocytic was shown in many fields where they had taken up in their interior lymphocytes and red cells. Where the thickness of the intestinal wall was greatest (Peyer's patches) there were foci of focal necrosis beginning. In the section of the appendix, the mucosa and submucosa were markedly thickened by this endothelial proliferation. These solitary nodes examined separately and the one mesenteric gland sectioned showed larger collections of endothelial cells invading the sinues and crowding the collections of lymphocytes. Focal necrotic areas were here relatively numerous. The phagocytic action of the cells obtained here as elsewhere. Sections of the gut and glands stained for bacteria showed bacilli in the former but not in the lymph node. These bacilli were morphologically identical with typhoid bacilli but may have belonged to other varieties.

To summarize:—The entire portion of the lower end of the ileum and the caecum of this patient showed tremendous hyperplasia of the lymphoid structures. Microscopically this enlargement was found to be due to very marked proliferation of endothelial cells with phagocytic properties. The histologic findings are typical of typhoid fever.

DISCUSSION OF DR. NORTHPROP'S PAPER BY DR. SAPPINGTON.

I would like to call attention to one point as regard this case—the final resting of the diagnosis on the histologic picture. The surgeon sends us tumors from various parts of the body and expects a confirmation or contradiction of his clinical diagnosis from the microscopic examination. Yet seldom is it that any of the infectious diseases are thus identified; here an accurate clinical diagnosis is available in the great majority of instances. And this is particularly true of typhoid fever.

Yet Dr. Northrop's case furnishes us an illustration of what occasionally occurs—a patient quite sick, but ambulant, seen by a number of physicians in different cities, the acute illness terminating in nine or ten days with a vague and equivocal history and unsatisfactory diagnosis.

The exceptions begun in this case were still furthered when at autopsy the gross findings were insufficient for a specific diagnosis. This may even be true when the microscopic findings are added in cases of septicemias, certain poisonings, tetanus, etc. But here the microscope gave us positive aid. In tuberculosis of various organs or parts, we may with great certainty, make an accurate diagnosis on histologic grounds. Without the bacteriology, this is not true of many others of the infectious diseases. In typhoid fever, fortunately, we are able with reasonable surety to give a positive or negative diagnosis on the histology—certainly so in this case. And this ability we owe to the splendid study of the histology of typhoid fever published by Mallory in 1898. His paper, we may say, has practically established the histology of this disease. Furthermore, the findings, at least in a typical case such as this, are peculiar or specific to the disease. We know of no disease which gives us this very marked proliferation of endothelial cells with almost malignant phagocytic properties. Dr. Northrop's case in this respect is so typical as to be almost diagrammatic. If there be any other disease with such a cellular proliferation, it, at least, does not follow the lesional distribution of typhoid. The diagnosis is particularly satisfactory in the early hyperplastic stage; when ulceration is reached, the histology is not so characteristic but the gross lesions are almost unmistakable.

I think, therefore, that Dr. Northrop's paper demonstrates to us one of those exceptional cases baffling in its clinical and gross autopsy findings, yet perfectly clear in the light of its histology. And it is satisfactory to know that we owe this certain knowledge of microscopic processes of typhoid to the careful study of Dr. Mallory, of Boston.

FEMORAL AND CRURAL PHLEBITIS AFTER OPERATION.—Morley (Ann Arbor) in an article which fully deals with this subject concludes as follows: The etiology of thrombo-phlebitis is as yet unknown. This complication may occur after any operation. Embolism of the lungs often takes place. The disease appears from the ninth to the twentieth day. The veins of the left side are most often affected. Death rarely supervenes. The symptoms disappear very slowly and in many cases not at all.—*Arch. f. Gyn.* Vol. 82, 379.

THE TREATMENT OF APPENDICITIS.

BY JOHN DEAN ELLIOTT, M. D., PHILADELPHIA, PA.

(Read before the Clinico-Pathological Society, December 21, 1907.)

THE mortality rate of appendicitis has been greatly reduced in the last five years. This has been brought about by the improvement in treatment, both before and after operation, by the surgeon becoming more conservative in handling the abdominal contents when infection has occurred, and, especially, by a smaller number of patients developing septic peritonitis for the physician is alive to the danger of delay and surgical intervention is called into play much earlier than formerly.

An immediate operation in acute attacks is indicated as before, but the treatment when the patient is first seen has been materially altered. The ice bag, the purge and the enema have been discarded and at present every effort is made to place the gastro-intestinal tract at rest. This is accomplished along physiological lines, not by attempting to splint the bowels with opiates and thus suppress all the secretions of the body, but by placing nothing in the stomach to cause peristalsis. In addition increased elimination of toxic materials by the skin and kidneys is promoted by the aid of saline solution.

Before considering the details it may be well to recall a few anatomical points which have a decided bearing upon the prognosis of peritonitis. The appendix is surrounded, except toward the median line, by comparatively fixed structures, above by the caecum and caecal end of the ileum, behind and externally by the parietal peritoneum. As is well known the safest position for the appendix is when it points outward into the lateral gutter, and Ochsner has further emphasized this by his injunction to turn the patient upon the right side if any change is desirable and thus form a protecting wall of the coils of small intestine. Furthermore there is the ever-watchful sentinel, the omentum, which instantly attempts to wall off all lesions and if the inflammation can be confined to a small area so that its powers are exerted at one spot the chances of success will be much improved. Ochsner has pointed out the danger of the small intestine spreading infection through movements caused by peristalsis; in order to eliminate this he advises two procedures, gastric lavage and abstinence from

all food. If any undigested food remains in the stomach, or if there is any nausea or vomiting, the stomach must be washed out until it is absolutely empty. One or two, or at most three, washings will accomplish this and if the vomiting recurs it should be repeated. Any food which is in the small intestine may be unable to pass through the ileo-caecal valve and by reversed peristalsis will regurgitate into the stomach from which it must be removed, or by again passing into the intestine will set up peristalsis, and from decomposition give rise to gas with consequent discomfort to the patient.

Nothing whatever should be administered by mouth, this applies to water as well as foods, for fluids are not absorbed in the stomach but pass through it and start intestinal action. Medicine may be given upon the tongue and cracked ice may be sucked, provided it is certain that all of the melted water will be expectorated. The patients must be closely watched for many of them will succumb to the temptation to swallow some of the water, at least this has been our experience.

A notable advance was made by Fowler when he advised raising the head of the patient in order to drain fluids into the pelvis. for absorption is much slower there than in any other part of the peritoneal cavity. So successful has this proved that it has been almost universally adopted and some surgeons even go as far as to have septic cases in a sitting posture before, during and after operation. Elevation of the head of the bed is more comfortable and is sufficient for practical purposes.

Cannon and Bond have shown that there is a reversed or antiperistaltic wave along the mucous membrane of the colon, which has the power of returning valuable food-stuffs, especially fluids, to the caecum, this taking place even in spite of bowel passages. This principle has been made use of by Murphy who injects saline solution continuously into the rectum drop by drop, thus causing the absorption of large amounts, at times as much as twelve to twenty-four pints in twenty-four hours. This results in a reversal in the current of the peritoneal lymphatics so that, instead of taking up toxic material, the peritoneal surfaces are bathed with a free discharge of fluid, which on account of the posture of the patient and the action of the diaphragm, is forced toward the pelvis. Moreover the heart, skin and kidneys are stimulated and instead of the excretion of a few ounces of urine large quantities will

be passed. One patient with a beginning serous peritonitis passed one hundred and seventy-two ounces in the first 24 hours after operation and another over one hundred ounces in the same period. The best method of using enteroclysis is to allow the solution to flow from a bag through a rubber tube into a nozzle which is inserted just past the anus. The bag should be elevated from six to eighteen inches above the level of the outlet, the solution should be kept hot enough to enter the rectum at 102° - 104° , and the nozzle should have several openings so that flatus can be passed while the flow continues. The rate of flow can be regulated by partially constricting the tube or by raising or lowering the bag; if severe irritation is complained of, or the fluid is not retained, the amount should be decreased. If this is not effective the enteroclysis can be discontinued for an hour or two and then resumed and thus may be kept up indefinitely. That the flow can be too rapid was shown in a patient of Dr. Van Lennep's, in whom an ignorant nurse forced large quantities of solution, all of which was retained but not absorbed, so that at the end of forty-eight hours the wound in the appendix was forced open and this was followed by a gush of clear fluid through the packed abdominal incision. The majority of failures under this form of treatment are due to carelessness on the part of the physician or the nurse, for it must be remembered that success does not depend upon any one factor but upon the accurate carrying out of each and every step. The response upon the patient's part should be rapid and continuous and in some instances the symptoms will rapidly subside and an operation can then be performed under the most favorable circumstances, *i. e.*, between attacks.

To recapitulate the ideal treatment, either before or after operation, is: (1) Gastric lavage if there is nausea or vomiting. (2) Absolutely no solids or liquids by mouth. (3) Elevation of the head of the bed with patient flat upon the back and to be turned upon the right side if any change is necessary. (4) The continuous administration of saline solution by the rectum.

Instead of flushing the peritoneal cavity, breaking up adhesions, mopping lymph from the intestines and in other ways helping the spread of infection, the majority of surgeons now content themselves with removing the diseased tissues with as little manipulation as possible and by drainage relieving ten-

sion. Incision of a suppurating wound with consequent lessened tension prevents to a certain degree the absorption of pus and this is as applicable to the abdomen as any other portion of the body.

Ochsner has recommended the treatment of all cases of appendicitis along the lines which I have mentioned when they have not been seen by a surgeon within the first twenty-four to thirty-six hours, or when he suspects the infection to have spread beyond the appendix. He believes that in the vast majority of cases the infection will be controlled by nature, or that the pus will be surrounded by adhesions, and in either circumstance a later operation will offer a better prognosis. This has been tried by us several times but the results have **not** been gratifying as a fatal outcome usually followed. In certain selected cases this may succeed, but it should only be attempted under the advice of an experienced surgeon.

DISCUSSION OF DR. ELLIOTT'S PAPER BY DR. H. L. NORTHROP.

It is an important fact well worth emphasis that the present day surgical treatment of appendicitis has materially lowered the mortality of this common and so frequently fatal "American disease." With the advent of the so-called Fowler position, in which cases of septic peritonitis are placed and maintained after the operation, and with the inauguration of the Murphy treatment, viz, the slow, more or less continuous injection of normal saline solution into the rectum following the operation upon the appendix, the results of surgical treatment have been far better than formerly. Remember that the saline enteroclysis, to serve this purpose, must be absorbed by the rectal mucosa. It is sometimes difficult for the patient to retain the salt water, particularly when the head of the bed is raised high in the air to secure the Fowler position and the patient is perhaps semi-upright at an angle of 45°. Perhaps the sphincters have been irritated and are relaxed from the giving of enemata and this will favor the escape of the saline solution. The latter should be maintained at the proper temperature and placed at the required height to secure the slow, easy flow into the bowel.

I am glad to notice from Dr. Elliott's paper that the ice bag is losing its reputation for efficacy in the treatment of acute appendicitis. For years I have maintained that the application of cold to the outside of the abdomen can have but little if any antiphlogistic effect upon the inflammatory process within. It is not even theoretically plausible to suppose that an ice bag externally placed can influence the inflammatory condition of an organ like the appendix, whose circulation and nerve supply are derived from totally different sources than the circulation and innervation of the abdominal wall which, furthermore, consists of a number of different layers made up of different kinds of tissue and in the majority of cases possesses no inconsiderable thickness. Certainly, the confidence which some

men whom I know place in the value of the ice bag in acute cases is unwarrantable and dangerous; such blind faith leads to delay and loss of valuable time.

The Doctor refers to the use of the tube for lavage of the stomach; this no doubt is serviceable at times, but such an adjuvant is impracticable in the majority of cases because very few physicians possess a stomach tube and very few patients suffering from acute appendicitis, with its intense pain and serious illness, will submit to its use.

HYPERTROPHY OF THE TURBINATED BONES.

BY HARRY S. WEAVER, M. D., PHILADELPHIA, PA.

(Read before the Clinico-Pathological Society, December 21, 1907.)

DURING the winter months relief from nasal obstruction is so frequently sought by those suffering from hypertrophic rhinitis and acute and chronic nasal catarrh, that I thought a short paper on turbinate hypertrophy, followed by a general discussion of these conditions by the members present, would prove helpful to all of us in the treatment of these cases.

Many of the general systemic disturbances are directly traceable to intra nasal disease.

Before taking up the causes, results and treatment of turbinate hypertrophy, allow me very briefly to review the anatomy of the nose. It is divided into two cavities by the bony septum posterior and the cartilaginous anterior. These openings are known as the right and left nares, each consisting of a vestibule and the nasal fossa proper. The vestibule includes that portion extending from the outer margin of the nose up to the cartilaginous ring, inside of which we have the expansion of the cavity known as the nasal fossa proper. This space is divided into the inferior, middle and superior meati and contains the turbinate bones.

The inferior turbinate body is a distinct bone articulating with the superior maxillary and ethmoid bones, forming a curved, overhanging ledge, extending from the anterior portion of the nasal fossa, to the choanae posteriorly, where it forms a rounded end plainly visible with the rhinoscope. The middle turbinate body articulates, or rather is a part of the ethmoid bone and is situated higher up in the nasal cavity, beginning a little farther back than the inferior and conforms in a general way to the shape of the inferior, ending posteriorly at the choanae with a similar rolled end.

The space above the middle turbinate is known as the olfactory fissure, giving a wide area of mucous membrane, to **which** the branches of the olfactory nerve are distributed.

Turbinate hypertrophy may be divided into two varieties, **true** and **false**. The former including those cases in which the **bone** itself is enlarged; the latter, where the tissues covering the **bone** become thickened or relaxed and is spoken of as a **pseudohypertrophy**.

True hypertrophy is found in both the inferior and middle turbinate bodies and is caused by traumatism, syphilis and frequent severe inflammatory conditions, which give rise to increased blood supply to the parts, continuing over a long period of time. The pseudohypertrophic variety is the most frequently encountered and is the most amenable to treatment. The inferior turbinate is the one usually involved. The pathological changes found are an increase in the connective tissue and glandular structures in the submucous layers covering the **bone**, or an increase in the size and number of blood vessels in the mucous membranes which are capable of dilating and contracting under certain conditions, forming more or less of a **varicosity** of the turbinate body.

Increased blood supply to a part always means increased **nutrition**, consequently a pseudohypertrophy lasting over a long period of time, soon presents some of the characteristics of a **true** hypertrophy, by increasing the development of some of the deeper structures.

The diagnosis between a true and false hypertrophy is very easily made. By inspection the appearances are nearly the same; but by introducing a probe and making pressure upon the parts, the true hypertrophy is found to be hard and firm while the false is soft and compressible. Another and more accurate way is to apply adrenalin, or a four per cent. solution of cocaine to the surfaces, either by spray or by a cotton mop and allow a few minutes to elapse, then inspect the parts again and you will find in the true variety the parts remain just the same size, while in the pseudohypertrophic variety, a marked shrinking of the tissues takes place.

The symptoms in many respects are very similar in true and false hypertrophy, with this exception, in the true variety: they are more or less constant and in the false, patients have periods of absolute relief of all annoying symptoms. True hypertrophy when of sufficient size to cause pressure on sur-

rounding structures almost invariably causes reflex disturbances, such as headaches, which are usually unilateral and are not aggravated or caused by close application, thereby distinguishable from the headache resulting from eye strain or errors in refraction. Bronchial conditions, coughs and asthmatic attacks not unfrequently have their origin discovered within the nasal cavity, and until the cause is removed all other treatment is only palliative and not curative.

Hahnemann's teachings, as I understand them, were to ascertain the cause and then remove it. It is true that not all cases of headache, coughs and asthmatic attacks are caused by intra nasal pressure or disease; but unquestionably some are, and I have seen just such cases respond immediately to the correction of the nasal defect. My only plea is that in all cases presenting symptoms which may probably be reflex in origin, do not fail to make a careful examination of the nasal chambers for possible pressure or disease.

Hypertrophic rhinitis is one of the most frequent symptoms associated with pseudohypertrophy of the turbinated bones. It is found in both sexes and at all ages. The symptoms usually complained of are a stuffiness of the nose which may involve one or both sides, or may alternate from side to side. The suffering in some of these cases is out of all proportion to the tissue changes found and operative interference which offers the slightest relief is eagerly accepted.

One who has never suffered from a nasal obstruction fails to appreciate the distress which these patients undergo and how eagerly treatment which offers the slightest relief is sought. The treatment of these cases must be carefully selected. Just here a word of caution may not be out of place in reference to the indiscriminate use of sprays containing cocaine.

The suffering many times is intense and any patient who has a remedy within reach, which will give prompt relief, as cocaine will do, will use it, consequently it becomes a dangerous ingredient to incorporate in a prescription for home use which can be used at liberty.

Local treatment plus the internal administration of the carefully selected homoeopathic remedy will answer in many of these cases and a permanent cure result; but in others the only relief you can offer is from operative interference. When the hypertrophy is of sufficient size to cause pressure or a marked nasal stenosis and is bony in character, operation is the only

scientific procedure. One might as well prescribe aconite for a fractured leg and expect it to set the bone as to prescribe the homoeopathic remedy for a bony enlargement in the nose and expect it to disappear. One would be just as scientific as the other. On the other hand pseudohypertrophy found within the nasal cavity many times does respond to local and internal treatment.

Some of the false hypertrophies are so thoroughly organized by the increase in connective tissue fibers that operative interference is necessary to establish permanent relief from the symptoms. When these symptoms are found in the young, especially prior to the age of puberty, all the symptoms should be carefully considered before operation is recommended. At puberty and soon after the nose undergoes changes which materially increase the breathing space and this may be sufficient to enable free nasal respiration, or the increased nasal development combined with the improvement possible from local and internal treatment may permanently cure the condition.

Too much operative interference, which necessarily means loss of nasal mucous membrane, combined with the normal development of the nose may give too large a breathing space and precipitate an atrophic condition from which the patient will never be able to recover permanently. Turbinectomy should not be done in all cases of nasal hypertrophy. Extreme care and good judgment must be exercised in the selection of cases. Conservatism especially in the young should be our motto.

The best local applications in these cases are Iodine and glycerine 5 grs. to the oz., nitrate of silver 5 to 20 grs. to the oz., tannin and glycerine 5 to 10 grs. to the oz., argvrol 10 to 20 per cent., and aqueous pinus canadensis. When local applications are used, the best results are obtained by first applying adrenalin to the parts and allow sufficient time to elapse for contraction of the tissues to take place, then follow with the selected application and apply thoroughly. More permanent relief is obtained in this manner.

In some of these cases the only hope of permanent cure is obtained by a partial destruction or removal of the tissue and this should be done so as to preserve as much of the mucous membrane as possible.

Cauterization by acids chiefly, chromic, glacial acetic, and nitric have proven very satisfactory in some cases but great

care must be exercised in their use. I have obtained the most satisfactory results by using the galvano cautery knife.

There is less danger and no trouble in limiting the extent of your canterization. The blade should be heated to a cherry red and drawn through the most prominent part of the thickening making sufficient pressure to destroy the underlying vessels.

The reaction from the cautery is very slight and if found necessary can be repeated in a week; but should be in about the same location so as to destroy as little membrane as possible. In cases where great quantities of thick tenacious mucous or dried crusts are found adhering to the mucous membrane, watery sprays or douches to thoroughly cleanse the parts can be used, but should be followed by an oily spray of some character.

Thorough cleansing, local application, and mechanical or operative procedure is necessary in many of these cases; but do not overlook your internal treatment. The carefully selected remedy will assist in curing your patients.

In tubercular patients such remedies as *ars. Iod.*, *calc. Iod.*, *calc. Carb.*, *calc. Phos.*, *Iodine*, *Selica*, etc., are often indicated. In syphilitic patients *Kali Iod.*, *Merc. Iod. Rub.*, *Merc. Cor.*, *Phytolacca*, etc., will do valuable work in clearing up the case. Allied remedies such as *Sepia*, *Fer. Iod.*, *Alumina*, *Kali. Bi.*, *Thrya*, and *Hydrastis* are frequently indicated. *Kali Iod.* is not only useful in specific cases but it is a valuable remedy in all hypertrophic catarrh and will do good work when given in one of the potencies as well as in the crude form. I have used it in one hundred grain doses of the crude drug to the 30x dilution and have obtained some of my best results in non-specific cases, in 2nd, 3rd, and 6th triturations.

This paper is not in direct keeping with the work of this society; but I do hope to elicit a free discussion from the members present and thereby profit by their experience in the treatment of turbinate enlargements.

ANNUAL REPORT TO THE CLINICO-PATHOLOGICAL SOCIETY OF PHILADELPHIA.

BY JOSEPH C. GUERNSEY, A. M., M. D.

Fellow-Members :

As its President, I desire to congratulate this Society upon the good work it is doing, and has done, ever since its foundation, in scientific or, as we might say, in *material* medicine. Such papers as those very recently presented by Drs. H. L. Northrop and W. N. Hammond illustrate what I mean by *material* medicine. In Dr. Northrop's paper, "Clinical and Post-Mortem Findings of an Unusual Case," the doubt was cleared up by the microscope, in the able hands of Dr. S. W. Sappington, and a positive diagnosis of unrecognized typhoid fever was made. Dr. Hammond's paper on "Congenital Dislocations of the Hip" was illustrated by an exhibition of the patients treated and by radiographs prepared by Dr. Frank. I still further congratulate this Society upon the fact that an uninteresting or uninformative paper never comes before us. In other words, at every one of our meetings the papers presented and read are always interesting and instructive; and, too, they are equally so to the general practitioner and the specialist. Bearing this feature well in mind it is hard, hard even to the point of impossibility to understand how any one of our members can afford to be absent a single night that we have a meeting. I am sure that I personally learn more—and I learn it better and easier and in a pleasanter manner, due to the aid of the illustrations and demonstrations of our lantern, microscope, etc., in two hours at one of our meetings, than I can acquire in several days' study from my books at home—nor is mine an isolated case; I have heard others of our members express the same sentiment. The secrets of the success of our Society, besides the interest we take in the science of medicine, are probably as follow :

First. The right spirit prevails among the members, most of whom are able and willing to contribute their share of work in a paper, or a microscopic demonstration, or the display of a pathological specimen found in a post-mortem, etc.

Second. The easy social elements that prevail at our meetings—each of us enjoying his cigar, pipe or cigarette ad libitum.

Third. Everybody is welcome! We have extended a permanent invitation to the Homœopathic profession in Philadelphia to attend our meetings and, if they desire, they may bring their friends. In short, we keep "open house" to all who are interested in the science of medicine and who like an informal, entertaining and instructive evening in learning better the *arcana medica* of their chosen and beloved profession.

We have been hampered in the past by the lack of sufficient electrical force to run our lantern to its full power. I am glad to say this evening, as you will learn from the report of Dr. Tuller, Chairman of the Committee, that our lantern is being placed in full working order so complete that we can show anything from a microscopic slide to a picture from a book. To do the latter we must purchase a Reflectroscope—an accessory we can afford because, in spite of the heavy expense of the extra wiring of our lantern, our treasury is in good condition, having an appreciable balance and no debts, in addition to which, this year's dues (for 1908) are already coming in.

I suggest that a special committee be appointed to consider the following recommendations:

First. That a stenographer be employed to take down our discussions. Among other valuable features as a Society, we have our "Five Minute Clinical Cases"—i. e., before the regular papers of the evening, any member is privileged to recount a clinical case occurring in his practice which he considers interesting and instructive to his fellows, providing the narration does not occupy more than five minutes. If he desires to illustrate his case by a "slide," the lantern and screen, or a special microscope, are always ready for him to use and a "lantern man" to exhibit it. Many of the cases so reported are too valuable to be lost; they could be, and would be, preserved if we had a stenographer. Also, much of the discussion of our regular papers is well worth keeping—opinions and criticisms being expressed by experienced men—many of them experts indeed, which confirm or dissent from the views put forth by an essayist of the evening. Money for this purpose can largely be procured by stopping what seems to be a useless expense, namely, the sending of cards of invitation to the whole of our profession each month. We certainly have been doing this long enough to enable our brethren to know that they are welcome to come as often as they please. It may be well to

occasionally invite them specifically when we are to have an unusually attractive program. So very few visitors come to us that it is evident not many doctors, outside of our own members, are interested in our line of work. If anyone becomes interested, he quickly joins our body and becomes a fellow member.

Second. We have an ample and well appointed "Cabinet," which was purchased with the idea of making a collection of desirable "slides". This cabinet is yet unfilled. The matter every now and then receives our attention in a perfunctory manner, then dies out until it is again, temporarily, revived. I suggest that this matter also be placed in the hands of a special committee for consideration and action.

All of which is respectfully submitted,

J. C. Guernsey, M. D.,

President.

REPORT OF DR. THEODORE J. GRAMM, SECRETARY.

Philadelphia, January 18, 1908.

To the Officers and Members of the Clinico-Pathological Society of Philadelphia:

During the year just passed this Society has held eight meetings as usual, no meetings having been held during the months of June, July, August and September.

The average attendance of members was twenty-two.

At the last annual meeting there were 92 members on the list; during the year there have been added five new members and five names have been dropped from the list because of resignation or death, so that the number of members remains the same as last year.

The scientific program of the meetings of the past year included a wide range of topics; numerous clinical cases were recited, many pathological specimens were displayed and microscopic preparations exhibited.

The regular papers presented to the Society included the following:

January.—Demonstration of the histology of the stomach: Dr.

E. G. Muley.

The mechanics of digestion: Dr. J. E. Belville.

February.—A case presenting symptoms of transverse myelitis cured by removal of urinary calculi: Dr. L. T. Ashcraft.

The actual amount of uric acid in urines showing uric acid sediment: Drs. S. W. Sappington and W. I. Tomlinson.

Observations on methods of making the Widal test: Dr. C. F. Rau.

March.—Tinea trichophytosis: Drs. E. M. Gramm and Ralph Bernstein.

April.—Remarks on the indications for a blood examination: Dr. S. W. Sappington.

Tuberculosis in young infants, with illustrative cases: Dr. C. F. Rau.

Abstract from a pamphlet on tubercular lesions and mode of infection: Dr. J. C. Guernsey.

May.—Green urine: Dr. J. C. Guernsey.

Tubal pregnancy: Dr. J. E. James, Jr.

October.—Elastic tissue proliferation in a fibroma: Dr. S. W. Sappington.

A case of myofibroma uteri, with cystic ovaries: Dr. H. M. Gay.

Specimens from a case of renal calculus, and from a case of cystoma of the testicle: Dr. D. Roman.

November.—Congenital dislocation of the hip, with report of five cases: Dr. W. N. Hammond.

Clinical and post-mortem findings in an obscure case: Dr. H. L. Northrop.

Chlorides in the urine: Dr. J. C. Guernsey.

December.—The treatment of appendicitis and its complications: Dr. J. D. Elliott.

Hypertrophy of the turbinated bone: Dr. H. S. Weaver.

THEODORE J. GRAMM, M. D., Sec'y.

ECLAMPSIA AND PARATHYROIDIN.—Vassale suspects some relation between the parathyroid gland and eclampsia, and suggests an extract as a remedy for this disease. Kaiser (Dresden) has used it in one case of unusual severity, and was well pleased with its action. He was particularly impressed with the rapid improvement of the pulse, the instant cessation of the attacks, and the rapid general improvement. He says if its action would always be found to be as good as in the case reported, we would possess a very valuable remedy in eclampsia.—*Zentralbl. f. Gyn.* 1907, 1241.

THE DIAGNOSIS OF INCIPIENT ARTERIOSCLEROSIS.

BY

H. H. HAWXHURST, M. D., WASHINGTON, D. C.

(Read before the Annual Meeting of the Washington Homœopathic Medical Society, December 13, 1907.)

WITHIN the memory of some of us who are in active work the subject of arteriosclerosis embraced but little more than slight reference to changes in the walls of the blood vessels. To-day there is nothing so important for the consideration of the general practitioner; no periodical literature more exuberant; no study so fascinating or so varied in its scope, for the problems involved are the problems of life itself. Of the involutions of advancing years it is the most widespread and the most vital. From insignificant beginnings, progressing steadily and insidiously, it undermines the very citadels of being; so that it is said that everyone not dying prematurely comes to his end from some form of arteriosclerosis.

From the outset of this disease there is something more than a passive hardening of the vessel walls and a disturbance of the circulation which mark the classic conception. There is somewhere in some degree a function in abeyance, either of digestion, renal activity, hepatic process, mentality, motility, or of metabolism, initiating a group of phenomena any one of which may become permanent and dominate the remainder of life. When symptomatic emphasis has been definitely and conspicuously laid upon some special organ our abilities contract to uncertain therapy and pessimistic prognosis. Early recognition, therefore, difficult as it is admitted to be, must be our vigilant endeavor, if we wish to hinder this harbinger of dissolution. Should I seem in this brief resumé of the symptomatology and diagnosis of arteriosclerosis to shun the well travelled roads and to lay slight stress upon some familiar phases, it is because I would purposely emphasize the frequently unnoticed and the unusual to the end that we may do our utmost while there is yet opportunity, for when nephritis, or angina or a snapping artery supervenes we have merely to wait for the end.

The last five decades have seen a marked increase in the frequency of cardio-vascular disease,¹ evidenced everywhere clini-

cally and by the hitherto inaccurate yet sufficiently significant reports of the census, which in 1850 tabulated 991 deaths per 100,000; in 1890, 5,569 deaths per 100,000. and in 1900, 7,590 per 100,000 under this division. Since the last census year the mortality statistics have been collected annually and carefully classified from the returns in the registration area, which now represents 48 per cent. of the total population. The same steadily progressing ratio pertains in the yearly statistics of all diseases under this head. In addition we have for the first time a tabulation of diseases of the arteries, which may be considered absolutely correct. The deaths from this cause in the area have been²—

1901	2,132
1902	2,629
1903	2,908
1904	3,516
1905	4,145

an increase in 1905 of 94.42 per cent. over that in 1901. What is it in our modern life to account for these figures?

This leads me to briefly enumerate some of the causes of arterial disease as an answer in part to that query and especially as pertinent to our consideration of early diagnosis, for if we clinically discover an important etiological factor we may be justified in suspecting the disease itself. The great predisposing cause is heredity, for experience teaches us daily that in certain families the individuals are endowed at birth with a lowed vitality; that they age early and die of arteriosclerosis.³ The breathless pursuit of competence or fame; the nervous strain and anxieties of certain business careers; the shocks of fluctuating fortune; all in some degree play their causative part. There are toxic agencies at work in many life histories; syphilis is universally recognized; so is gout. Thayer and Brush⁴ support the view that acute arteritis of the smaller vessels is an undoubted result of the infectious disease, rheumatism ranking first and typhoid next in the production of palpable arteries. Stengel⁵ and Anders⁶ still believe that alcohol is a factor, though Cabot⁷ both from clinical and from post mortem researches, finds that in but a small percentage of cases does it appear as a contributory agent. Overfeeding, that is an excess both of carbo-hydrate and of nitrogenous⁸ food, is exceedingly prominent here, and in many cases is apparently the

only cause and the one most often overlooked in prevention. The effects of prolonged hypertension of the arteries produced by muscular overstrain, popularly known as "athletics," conduces notably to vascular degeneration. Lastly the age of your patient, the oncoming of senility, should lead you to suspect it, though that it is a necessary part of advancing years is not an invariable fact. When Thomas Parr died at the age of 150 Harvey found his arteries to be free from any evidence of degeneration.

The earliest clinical indication of arterial disease is probably diminishing vigor; nutrition becoming less than the organism demands, there results a reduced vitality which may be either physical or mental or both. The patient tires easily and comes vaguely complaining that he is getting old. If there is lessened mentality, he finds that with effort his routine brain work is done fairly well, but that a task out of the ordinary seems impossible. Aphasia is common; so are attacks of vertigo, hebetude or irritability. Such manifestations are likely to come in gusts and waves at first and would induce us to think we have to deal with neurasthenia were it not for the fact that the effects of temporary exertion are exactly opposite in the two affections; alleviating neurasthenia and intensifying those of arteriosclerosis. With this debility there may be noted a change of color, a pallor which is quite characteristic facially and to be observed especially about the mouth, temples and eyes.⁸ It is not a true anemia, because the quality of the blood shows no declination from that of perfect health; but is rather an ischemia due to the narrowed arteries and capillaries. For the same reason the skin generally reacts badly, shown by profuse sweatings inadequately induced. Later on this is succeeded by permanent dryness and harshness of the skin.

Advancing another step to confirm the suspicion that has arisen, we study the functions of the kidney, remembering always that in certain cases of slight, moderate or even advanced sclerosis this investigation will give us no information whatever of diagnostic importance.⁹ But most frequently there is an early renal sign of value; I refer to the varying specific gravity of the urine and necessarily with that an alternating polyuria and reduced excretion. The average normal individual, living the average normal life as to food, drink and exercise, excretes a daily urine of fairly uniform density and

quantity. When, however, arterial disease is beginning, this same individual under the same conditions will pass a morning urine of 1020 to 1025 and an evening of 1005 to 1010. This has been well termed tachyuria and should be considered a fairly constant early symptom.¹⁰ Cylindroids only are shown by the microscope at this time, casts not being found until quite late in the disease. Albuminuria, transient or continuous, is also a phenomenon of late development. Very few cases of well marked arteriosclerosis occur in which albumen, at least in traces, cannot be demonstrated. Often this finding is the occasion of unnecessary alarm, and induces the ill considered diagnosis of a contracted kidney. Histologically all such cases probably are chronic interstitial nephritis, but from the clinical standpoint, it is certain that for prognostic purposes they should not be so considered unless the other phenomena of that condition, especially polyuria, are present.¹¹

Incipient arterial degeneration in many cases presents symptoms referable to the heart. There is arrhythmia and dyspnoea long before the myocardium has become diseased. This irregularity in the heart's action, if the patient is over 40, is often hastily and wrongly ascribed to alcohol, tobacco or to digestive disorders, when in reality nature is flying one of her earliest danger signals. The first heart sound at the apex is lengthened and heavier than normal; later it becomes vibrating and uncertain and is at last replaced by a murmur. The second sound in the aortic area is accentuated early and remains so.

Let us now consider as briefly as its importance permits that cardinal symptom, arterial hypertension, which, Stengel⁵ asserts, is invariably present as the first early index of the loss of arterial elasticity. It has been well defined as "an attempt of the organism to maintain an adequate speed of capillary flow through the kidney or other important organ which would be impossible without it."¹² Similar to other physiological processes, such as body temperature or urinary excretion, the degree of blood pressure, especially in the direction of an increase may fluctuate widely for short periods. But a persistent hypertension is a symptom of disease, though it is at the same time a defensive force raised against the disease.

I wish for the sake of simplicity that Stengel's sweeping assertion of the universality of hypertension in arteriosclerosis were true. Clifford Allbutt¹³ maintains that there is no direct

relationship whatever between arteriosclerosis and the blood pressure. It is certain that in this condition the blood pressure is not always above normal even in advanced cases, and I will try to make clear to you why this paradox of opinion and of facts exists. Arteriosclerosis is not evenly distributed throughout the vascular system. It may effect the superficial and not the deep vessels, the larger and not the smaller, or vice versa, or appear in different degrees in both. It is believed to be demonstrated physiologically that the abdominal vessels, controlled by the splanchnic nerves, regulate the general blood pressure of the body. The size of this area, large enough to contain about the entire volume of blood, is one reason for this power. Another is the fact that of all vaso-motor nerves the splanchnics are the most easily affected by reflexes from any sensory nerve.¹⁴ By a series of brilliant experiments Hasenfeldt and Hirsch have independently substantiated the theory that it is only when the vessels of the splanchnic area, or of the aorta above the diaphragm are diseased that high blood pressure is developed in arteriosclerosis. Degeneration of the peripheral vessels alone does not exert this influence, for as long as the elasticity of the great mass of internal vessels is unimpaired, compensation is afforded for the narrowed lumen of the peripheral tubes and blood pressure is not elevated. It is seen therefore that there is a definite middle ground between Stengel's affirmation and Allbut's negation and a satisfactory explanation why many of the ordinary clinical types of arteriosclerosis are not necessarily accompanied by high blood pressure. At the risk of wearying you with repetition I will repeat this lesson again to summarize. Arteriosclerosis as a disease of the larger superficial vessels is without influence on blood pressure, and when high blood pressure does exist it argues the involvement of the small arteries, especially in the splanchnic area. Such cases as the latter are the most important to recognize early and it is apparently a fact that these are the ones that are increasing in frequency, especially among the well-to-do. Von Bash designates this class as angio-sclerosis; Huchard as presclerosis.

To clinically ascertain blood pressure we have heretofore used the time honored method of palpating the radial artery. But though our tactus eruditus be ever so keen, it is often impossible to differentiate between a resistance due to hypertension and one from thickened vessel wall. Another difficulty

results from the fact that the muscular sense, upon which we base our pressure judgment, is utterly unreliable in appreciating "the ratio of the amount of force to the unit of surface," which is varying constantly because the caliber of the arteries is inconstant, not only in different individuals but in the same under varying circumstances. Our finger will thus always lead us to infer a higher pressure from the larger artery, when as a matter of fact the small wiry pulse often presents the maximum grade of tension. An instrument devised to eliminate such errors in measuring tension is the sphygmomanometer, recently simplified and made so portable and so inexpensive that it is a welcome aid to our study of circulatory disturbance, and a *sine qua non* in the diagnosis of splanchnic sclerosis.

In considering the high tension of our cases it must not be forgotten that the most potent factor known in elevating blood pressure is chronic interstitial nephritis, and if this condition is found to exist it is not necessary to search further for the cause of hypertension. Greater care than ordinary is required to differentiate nephritis in suspected arterial disease, owing to the fact, as I have already intimated, that some degree of renal involvement is almost always associated with vascular degeneration. Casts and albumen are deprived of their diagnostic significance since they are varyingly present in both conditions and it is upon polyuria and the quantitative findings that we must rely for our conclusions. The question in your mind as to whether the renal change is secondary to or a cause of the arteriosclerosis is a most interesting one but as yet not fully determined. Since the lesions of vascular disease are distributed very irregularly through the kidney, the most recent investigators have concluded that if only large and medium sized renal vessels are involved, arteriosclerosis may exist without causing interstitial nephritis; but when the arterioles and glomerular capillaries are affected there results a correlated distribution of the fibrous overgrowth characteristic of the granular kidney.¹⁵ According to Loeb the increased blood pressure in renal disease is due, not to associated sclerosis of the splanchnic vessels, but to reflex splanchnic vasoconstriction evoked from the vascular changes in the glomeruli. When we find high blood pressure, then, in suspected arteriosclerosis, it points either to renal disease, or to fibrotic changes in the splanchnic vessels or to both.

Than arterial hypertension we have as yet no other approx-

imately certain diagnostic criteria of splanchnic sclerosis. It may be suspected in corpulent persons of sedentary habits. Klemperer¹⁶ has called attention to the frequent occurrence of unexplained and transient fibrole attacks, as one of its symptoms. Another syndrome upon which emphasis is being laid is paroxysms of abdominal cramps in patients past middle life. These seizures are usually perinavicular and last from a few minutes to a half hour or more, occurring many times a day and being followed by days of complete relief. Over-exertion and emotional disturbances nearly always precede an attack, but the taking of food, except the meal be a very large one, bears no relation to them. The character of the pain is sharp boring and burning like that of gastric ulcer.¹⁷

Other disorders of sensation ranging in degree from simple paresthesia to the final darting, scorching agony of angina pectoris are more or less constant symptoms of arteriosclerosis. Discomfort in the head is a frequent early sign, especially a morning heaviness and oppression becoming an actual headache in the course of the day. The pain may be frontal and persistent, and aggravated by stooping or by abdominal pressure,¹⁸ or it is more often high on both sides and made worse by physical or mental effort. Merely concentrating the attention is sometimes enough to arouse this pain; hence it has been called "the sign of the painful thought."¹⁹ A headache persisting after correction of refraction errors should suggest arteriosclerosis. These patients sometimes complain of transient tingling or heaviness in the arms or legs, or more often of numbness and a sensation of heat or cold. There may be attacks of painful cramps in the leg muscles, usually slight and nocturnal, or recurring paroxysms of extraordinary intensity, deserving the name *angina cruris*.²⁰ Here also we have that transient paralysis due to arterial spasm, described by Charcot in 1856, called *intermittent claudication*; an exceedingly interesting syndrome occurring in men after middle age who are often inveterate smokers. "After walking with comparative ease for a few minutes the patient suddenly experiences a sense of weight and cramp like pain in the legs. (Osler says it is usually unaccompanied by pain.) They give way underneath him and he falls to the pavement. After a few minutes' rest he recovers, rises and goes home."²¹ During the paroxysm the legs and feet are cold and slightly cynosed and the

pulse in the posterior tibial and the dorsalis pedis arteries is for the time absent.

To carry further the symptomatology of arteriosclerosis would be to depart from the domain of its incipient manifestations with disturbance of function, and enter upon that of the special organic affections of its later stages—the terminal events of the process of arterial degeneration, the early sign of which I have endeavored to bring anew to your attention. I will therefore leave the subject here, concluding with an eloquent paragraph from the brilliant pen of William Osler to lend a final emphasis to the importance of diagnosis at a period when by appropriate measures we have a fair prospect of arresting the progress of the disease.

"In the worry and strain of modern life arterial degeneration is not only very common, but develops often at a relatively early age. For this I believe that the high pressure at which men live and the habit of working the machinery to its maximum capacity, are responsible, rather than excesses in eating or drinking or than any special prevalence of syphilis. Angiosclerosis creeping on slowly but surely, "with no pace perceived" is the Nemesis through which nature exacts retributive justice for the transgression of her laws—coming to one as an apoplexy, to another as an early Bright's disease, to a third as an aneurism and to a fourth as angina pectoris, too often slitting the "thin spun life" in the fifth decade, at the very time when success seems assured. Nowhere do we see such an element of tragic sadness as in many of these cases. A man who has early risen and late taken rest, who has eaten the bread of carefulness, striving for success in commercial, professional or political life, after twenty-five or thirty years of incessant toil reaches the point where he can say perhaps with just satisfaction, "Soul, thou hast much goods laid up for many years: take thine ease," all unconscious that the fell sergeant has already issued the warrant—and that the avenger comes through the arteries."²²

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TYPHOID FEVER.

BY

EDWARD G. MUHLY, M. D., PHILADELPHIA, PA.

(Presented before the Homoeopathic Medical Society of the County of Philadelphia in behalf of the Philadelphia Society for Clinical Research.)

MR. PRESIDENT AND FELLOW MEMBERS OF THE HOMOEOPATHIC SOCIETY OF THE COUNTY OF PHILADELPHIA: In presenting the subject of typhoid fever it may not be amiss for me to give you a very brief historical sketch of the disease. Early in the seventeenth century there were certain diseased conditions which presented symptoms which were identical to the typhoid fever of to-day, principally the rise of temperature, but under what conditions it existed was not known. It was confused with a large number of conditions. In the eighteenth century it was established that a certain relationship existed between the fever and certain gastro-intestinal symptoms.

The greatest advance in the study of typhoid was made in the early part of the nineteenth century. In 1818 Bretonneau demonstrated positively the existence of lesions in the intestines. He discovered that the lesion was located in the Peyer's patches of the intestines, and where such conditions existed, they were always associated during life with a fever.

In 1829 the disease received the name of typhoid. At about this time the most observations were being made in France.

where the disease was prevailing to a greater or lesser extent. Little was done at this time in the differentiation between the two diseases, typhus and the now called typhoid. In the nineteenth century a great amount of research work was done, and in 1849-1852 typhoid fever was positively separated from typhus.

That the disease was due to a micro-organism was not demonstrated until 1880-1881, when this was done by Eberth, after whom the organism is named. In 1884 it was successfully isolated in pure culture by Gaffky.

Etiology.—Osler says that “typhoid fever occurs in all parts of the world and is an index of the sanitary intelligence of a community.”

Under etiology we have many things to consider; not only the fact that the disease is due to a specific organism, but most important of all we must consider under what conditions this organism is going to thrive and create the greatest amount of destruction.

As regards the sex, there is very little difference, although the majority of authorities believe the male to be attacked more than the female. Although it is generally conceded that the autumn is the time of the year in which the disease prevails to the greatest extent, still we find that the disease is with us at all times. A recent epidemic which was assuming an alarming character occurred in the months of January, February and March of the year 1906.

Age is a predisposing factor, and is important. Infants rarely contract a typical typhoid fever. Whether they possess a particular immunity is not determined. As we ascend in the age scale, the cases increase in number. Gibson says it occurs most frequently during the ages ten to twenty-five; exceptional after forty and rare after sixty. I have experienced two or three cases between the ages of three to six years, in which the only symptom was fever, but the diagnosis was confirmed by the Widal test. Without the Widal test these might have been classified as some other disease, particularly of the gastro-intestinal tract.

A brief description of the typhoid bacillus seems necessary in the consideration of typhoid fever. This organism was discovered by Eberth in 1880 in the discharges from the intestines and in the tissues of the cadaver. In the tissues they were found principally in the spleen, also the mesenteric

glands and in the Peyer's patches. In 1884 Gaffky isolated and produced pure cultures of this organism.

In patients suffering from typhoid fever these bacilli have been demonstrated in the feces, the urine, and the blood. At autopsy they are to be demonstrated in the spleen, lymphatic glands, liver, intestines, etc.

The typhoid bacillus usually enters the body through the gastro-enteric system carried by some article of diet. Under this head we shall consider milk and water.

It has long been an established fact that epidemics of typhoid fever have occurred in neighborhoods supplied by water from a certain source. In many of these instances the bacillus has been found in such water. Klemperer of Berlin says that water is the main distributor of the typhoid poison.

It is a difficult matter to discover the bacillus in water and if at any time search for the bacillus is made and is not demonstrated we cannot always exclude water as the cause.

The various epidemics which have occurred in Philadelphia have been attributed to the water supply.

Milk is a frequent means of infection. It may be due to the fact that a person nursing a case of typhoid also milks the cows and thus infects the milk. The most frequent means of infection is by washing the dairy utensils in water which contains the typhoid bacillus.

I have in mind one case of this character occurring in Baltimore. The family received their milk from a certain dairy in the vicinity. The first case was a lady in the household, and after being ill for a week or so, her brother became ill and finally a maid. The milk as it came from the cow was analyzed and no evidence of typhoid was discovered. The water from the spring in which the cans were washed and the milk cooled (and possibly a little added) was found to contain evidence of the bacillus and thus the source of the infection.

It is rarely that we hear of solid articles of diet being the cause of typhoid infection. Meat is rarely ascribed as the cause. Oysters are in all probability the source of numerous cases of typhoid fever. The oyster beds are laid in the mouths of rivers and feed upon the sewage emptied into them. We can readily see how a person partaking of oysters in the raw state may become infected.

Cases are on record in which the disease has spread from

patient to attendant on account of improper disinfection of hands after attending to the patient, or through clothing.

I have had one case which, without a doubt, is a case of direct infection. About February 1, 1906, I was called to see Miss Mamie R., who was suffering from a large sloughing ulcer of the labia majora and minora on the right side, this being associated with a right inguinal adenopathy. Her temperature varied from 100 to 102 degrees. I made a Widal test but the result was negative. On the sixth of February the temperature was 100, and on the eighth had risen to 103. On examination I found that a large ulceration was taking place in the vagina. During all this time there was no splenic enlargement, or spots. With proper antiseptic treatment the ulceration gradually improved and the temperature receded to normal, and remained so until the seventeenth of the month. At this time the evening temperature rose to 102, and continued an irregular course until a normal temperature was reached in about three weeks. At the time of the exacerbation of temperature the spleen became slightly enlarged and a few scattered crops of spots appeared over the abdomen, and at this time I obtained a positive Widal.

On the eighth of February my attention was called to Miss Tillie R., a sister of the previously mentioned patient. She had been complaining for some time of headache, malaise, etc., and upon examination found her temperature to be 104, with slight splenic enlargement and in a day or so roseola.

I ordered my patient to bed, and despite my remonstrances the mother placed her in bed with her sister under the plea that she could not attend to them if they were in separate rooms. In this case the family could not afford a trained attendant and at the same time refused to allow either case to be sent to the hospital. As you can see by the record, it was nine days after the sisters were placed in the same bed that the first one developed a typical typhoid condition.

Air was at one time supposed to carry the typhoid infection, the theory being that the fecal matter, for instance, became dried and in the form of a powder was carried from patient to patient, but during the Spanish-American War it was demonstrated that the common fly was the factor in the spread of typhoid. The old theory of dissemination by air might be explained in this manner.

In concluding the etiology of typhoid fever, we must always

bear in mind the fact that the origin of every case of typhoid fever or of every epidemic is an individual already affected with typhoid, and in addition to this try to discover the method of transmission.

Pathology.—As to the pathology of typhoid fever, studies have recently been made which prove that the old idea as to the morbid conditions of the tissues of the body infected with typhoid are not entirely correct. It was previously acknowledged as a fact that the typhoid toxins affected principally the lymphoid cells of the various lymphatic structures of the body, such as the Peyer's patches in the intestines, and mesenteric glands. As a result of the action of the toxins there resulted a proliferation of the adenoid tissue cells and on account of this increase in the number of cells the various phenomena such as ulceration depended. Recent investigations were made by Mallory. According to Mallory the toxins produced by the typhoid bacillus caused an increase, not of the adenoid tissue cells, but an increase in the number of the endothelial cells of the lymphatic spaces, the blood capillaries and the endothelial cells of the reticulum which is found in various lymphatic structures.

Ulceration is not caused by a proliferation of the lymphoid cells thus interfering with the circulation and causing subsequent necrosis, but is due to the blocking up of the lymphatic sinuses, and capillary blood vessels thus forming thrombi which causes local areas of anemia with subsequent necrosis. Enlargement of the spleen would be due to this proliferation of endothelial cells and in the spleen small necrotic areas may be discovered microscopically. This also occurs in the liver.

Adenoid tissue cells may be seen in a state of active proliferation, but the essential pathological feature of typhoid is the increase in the number of endothelial cells.

Symptomatology.—In order for an individual to develop the various symptoms ascribed to typhoid fever it is necessary for him to become infected with the bacillus typhosus. The bacillus does not immediately produce the symptoms of the disease, but it gradually develops, and numerous other bacilli are produced, and these together produce a certain poisonous element, their toxin. As they increase in number and throw out their poisonous toxins into the system they produce at first numerous vague, and as a rule, non-alarming symptoms. These toxins

finally increase to such an extent that the various physiological processes are so disturbed that alarming symptoms ensue.

The time occupied from the infection by the Eberth bacillus to the time of the rise of temperature is known as the period of incubation. This is usually from eight to fourteen days. In certain cases it may appear earlier and in other atypical cases later.

I can present one case, Mr. R., in whom the period of incubation was apparently very short.

The patient was in apparent good health on March 17, 1906. On March 18, 1906, he was taken suddenly with headache and chill with temperature of 101 and in a couple of days his temperature was 102, and on the fifth day presented a Widal reaction. This case I believe to be one of a very short period of incubation.

It would, however, be very difficult to determine just when a typhoid bacillus would enter the body. In other infections, such as scarlet fever and diphtheria, the time of exposure to the contagion would, as a rule, be known. Nothnagel calculated the incubation period to be from one to three weeks. He also states that we may, or may not, have the symptoms of the prodrome present. He estimates that from 5 to 10 per cent. of all cases develop without the appearance of a symptom during the incubation period. This may explain the case I have just cited.

During the period of incubation the symptoms generally encountered are languor, the patient tiring upon the least exertion. Headaches, these frequently frontal, but as a rule indefinite and generally dull in character. Associated with these symptoms we find nausea, loss of appetite, and constipation as a rule. Night sweats are present in a large number of cases and this symptom in association with others may, at times, lead us to suspect the presence of a tubercular lesion. If the patient is under observation at this time, which as a rule he is not, we find very little or no rise of temperature. The actual commencement of the disease dates from the time when the patient presents the first marked febrile symptoms. This being calculated when the patient first goes to bed. The duration of the morbid process in typhoid fever varies from three to six weeks.

The febrile conditions may be divided into three parts:

1. Stage of development.
2. Fastigium or acme.

3. Decline or Defervescence.

In typhoid the actual onset of the disease is frequently ushered in with chilliness, this slight but repeated. Where a sudden severe chill is associated with rise of temperature, we usually think of some of the other infections, but not of typhoid.

The temperature gradually rises until the end of the first week. The rise of temperature is associated with the symptoms of the prodrome only in an aggravated form. Prostration becomes greater, the headache more constant, thirst is marked, and constipation is the usual condition of the bowels. The pulse is full and regular and increases in proportion to the degree of fever.

The abdomen is usually slightly distended. At this time the spleen becomes slightly enlarged; epistaxis occurs frequently during this stage.

In a large percentage of cases a bronchitis is present in the early part of the disease. There is very little exudate with it, and the associated cough is only a hacking dry cough. During this stage the temperature has gradually risen, there being slight morning remissions and evening exacerbations at these times. The fever reaches its height and remains so for an indefinite period, generally from seven to fourteen days. This point of highest temperature is coincident with stage of infiltration of the lymphatic structures in the intestines, and at about the time when they are ready to undergo necrosis if it should occur. This period is spoken of as the acme or fastigium. The temperature may reach 103 or 104 degrees, being lowest in the morning and highest in the evening.

During the acme of the disease the patient's complaints cease. His headache, etc., disappear, and unless some complication is present, such as pleurisy, perforation, etc., he suffers no pain. The patient becomes listless, takes little or no heed of his surroundings; muscular atrophy takes place followed by a decided weak condition. The lips are dry.

In the majority of cases the constipation which was present during the stage of development changes to diarrhoea.

About the beginning of the fastigium the characteristic eruption appears. Nervousness which was present during the stage of development increases and instead of a headache, a violent delirium may be present.

During the acme any one of the numerous complications

may occur, such as tympanitis, hemorrhage, perforation, pneumonia, etc.

At the end of the fastigium, or at the end of the third week, a gradual decrease in the temperature occurs, with a gradual amelioration of the symptoms present.

I wish to consider as briefly as possible the various symptoms in detail and consider the typical form of the typhoid and then any variation which may occur.

Naturally, one of the most important conditions is that of temperature. Upon the study of the temperature of our cases from day to day, we can readily base our treatment and prognosis. The average duration of the fever is from three to four weeks. It is hardly necessary for me to describe to you the typical temperature curve as first described by Wunderlich.

Nothnagel says that the period of incubation is usually free from any febrile disturbances, but he states that during epidemics the temperature of the pre-febrile stage has shown certain variations, changes greater than occur physiologically, in the morning being lower than in normal for that particular case, and higher at night. He also states that there is a great variability during the incubation period in the pulse rate, which is particularly much higher at night and lower in the morning.

The highest elevation of temperature usually occurs slowly, being at the highest level at about the end of the first week. This gradual ascent in the temperature is one of the points in differential diagnosis. The majority of infections, particularly pneumonia, variola, etc., have a sudden rise of temperature to the highest degree.

The evening temperature of the first week rises to about one degree, or one and one-half degree higher than the morning temperature, and the next morning there is a remission, but not so low as the morning previous. This gives a step-like gradation of temperature. After the highest degree is attained, it remains almost the same at night for a week, or one and one-half weeks, with a morning remission.

In severe cases it has been noted that at times there is no difference between the morning and evening temperatures.

Toward the latter part of the fastigium the morning remissions are greater.

The third stage of the febrile state, that of decline or deferescence, is identical to the healing of the ulcers. The decline is gradual, the morning and evening temperatures being lower

than days previous. Cases have been recorded in which persons who are employed at night, and should they contract typhoid fever, the highest temperature would be in the middle of the night or early morning.

The first period after defervescence may appropriately be called the stage of subnormal temperature. Frequently after the febrile stage has passed, the morning temperature will be 97 or lower. I find that the occurrence of a subnormal temperature at the end of defervescence is a sure sign that the case is going on to complete recovery, without another exacerbation of temperature. At the end of a week or ten days, the normal temperature in the morning has been gradually resumed.

At the time during the period of greatest temperature, we may experience a sudden remission of temperature, this remission generally occurs in the morning. If this remission be associated with a diminution in the size of the pulse, and the same time an increase in its frequency, we have a condition of collapse.

Nothnagel speaks of a pseudo-collapse. A marked remission of temperature is present, but the pulse does not change in character. This phenomenon is not explainable, but under such conditions the prognosis should be guarded. After pseudo-collapse, the disease frequently pursues a severe course, and in this case Nothnagel has experienced a severe time and fatal collapse. I have experienced this once.

There is one form of temperature which should be studied carefully so as not to confuse us in making a proper diagnosis. This is one in which there is a marked remission of the temperature at times to normal. These cases are so few, but they may be confused with miliary tuberculosis or some form of septicemia. I present a partial copy of a temperature chart of such a case, where the remissions in the morning were almost and even to normal. In this case the spleen extended about two inches below the rib border and the rose spots were scattered over the abdomen and back. A case of this character was recently reported to the Clinico-Pathological Society by Dr. Northrop. In this case the positive diagnosis was not made ante-mortem, and not until after death and a microscopic examination made by Dr. Sappington was the exact nature of the disease known. In this case, however, such positive symptoms as rose spots and enlargement of spleen were not reported

as being present as in the case which I mention from my own practice.

In children the duration of the fever is shorter as a rule. In very young children it may only last from eight to fourteen days; the older the child the longer the disease. The initial rise is more abrupt than in adults, although the gradual rise is present in a large percentage of cases. During the fastigium or acme, the remissions in children, according to Holt, are not so great. The temperature of the fastigium in children is comparatively higher than in adults.

Being in close relationship to the temperature, it would be well to devote some time to a consideration of the pulse in typhoid. During the development of fever the pulse rises in step-like gradation just as the temperature, and during the acme of the disease the pulse curve runs parallel in the majority of cases to the temperature curve. In a very nervous individual this may be altered. This parallelism of pulse and temperature is ascribed to the action of the toxin. The same amount of toxin acting upon the cardiac and thermal centres causing the same degree of disturbances.

One point of significance is that the pulse rate in typhoid is not as high as it would be in another infectious disease, with a like degree of temperature. Frequently with a temperature of 103 or 104, the pulse rate will be 80 in the morning and 90 to 100 in the evening; it is supposed that the toxin has an inhibitory action upon the cardiac centres. Excitement or any other unusual condition may irritate and temporarily disturb this ratio. If at the onset of a case of typhoid the pulse rate is high, the case usually pursues a severe course. If a case is pursuing an apparently normal course and the pulse should gradually rise, it is well to be on the lookout for some complications.

In cases of pneumonia or hemorrhage the rise in pulse rate will be the first indication. After the disappearance of fever the pulse in a few cases is subnormal, being 40 to 50 per minute.

I shall now discuss a few of the most prominent symptoms of typhoid, those which are the most constant accompaniments of the fever.

Splenic enlargement is considered by the vast majority of physicians to be an essential element in the diagnosis of typhoid. There is no disease in which splenic enlargement is so

constant and of such a degree as it is in typhoid, unless it be malaria or septicemia.

In typhoid, splenic enlargement occurs early and remains late, and reappears in every relapse of the disease, if such should occur. The spleen enlarges to twice its normal size.

When splenic enlargement is absent, it is due to some previous condition which has caused cicatricial changes in the parenchyma of the spleen, preventing its enlargement. In aged persons this enlargement may not occur.

Another symptom which is invariably looked for is the typhoid roseola. The roseola is composed of small red spots, varying from the size of a pin to that of a lentil, occurring on the chest, abdomen and back, frequently appearing on the back 48 hours before they appear on the abdomen or chest. The arms and legs rarely have them. They disappear on pressure, demonstrating that they are hyperaemic. They commence as a pale pink macule, and gradually grow larger and darker. They are discrete as a rule, occurring in crops of two and threes, one crop disappearing as another appears. Roseola may be absent in a large number of cases. This is frequently so in children. Each spot lasts about three or five days, gradually disappearing. If the rose spots were present during a case of typhoid, and a relapse should occur, they invariably reappear with the relapse. It is supposed that the blood contained in the spots contains the typhoid bacillus. One observer removed the spots, placed them in boullion, and later demonstrated bacilli in the tissue.

There is not an organ in the body that is not affected to some degree during typhoid. Most important are the digestive organs, the lips, mouth, tongue, pharynx, show many changes. The mucous membrane becomes dry, and in the later stage the tongue is frequently covered with a dark brown dirty deposit. The parotid gland will at times become swollen during an attack of typhoid fever. This generally occurs on one side and frequently spreads to the other. It occurs at the height of the fever and in greatly emaciated patients. It is due to the infection traveling through Stenson's duct.

As far as the oesophagus and stomach are concerned, they are altered very little during typhoid. Nausea and vomiting are symptoms met with, and vomiting particularly, being one of the first manifests in children. In adults nausea and vomiting would only be of significance in the late stage of the

disease, where it might indicate the onset of some complication such as meningitis and perforation. During convalescence, nausea and vomiting can invariably be traced to errors of diet.

In the intestinal tract we find some of our most important symptoms referred, for it is here that the specific lesion of the disease occurs. The degree of severity of the case, as a rule, will compare to the extent of the lesions in the intestines, but we will find cases in which the patient was walking around, attending to his affairs, and still was suffering from typhoid fever. These cases upon autopsy will show extensive destruction of the Peyer's patches.

There are few conditions of the intestines which need our attention. Chief among these is the distention or meteorism, the stools, the hemorrhage, peritonitis and perforation.

Meteorism in the early writings was considered as a regular and constant symptom of typhoid. To-day a patient coming under observation early, obtaining the proper treatment, meteorism is practically unknown, or if present, is only slight. Marked distention occurring and continuing despite proper treatment is rather an unfavorable symptom. The distention is due to the effect of the typhoid toxin, upon the muscular coats of the intestine, and not to the ulceration. The muscles become paralyzed. The larger intestine and particularly the colon is most markedly affected. In the latter stage distention may be due to some peritoneal inflammation.

Pain is rarely experienced by a typhoid patient unless it be due to some severe complication, such as perforation. The most general condition complained of is tenderness over the abdomen.

The stools of typhoid are frequently considered as being of a peculiar character, often compared with "pea soup," but such is not always the case. Frequently the stools when diarrhoea occurs, are of entirely different nature. The stools, if allowed to stand, will separate into two layers, the lower layer yellowish opaque and an upper watery translucent layer. Microscopic examination of the lower layer shows sloughs from the lesion in the intestines, particles of food, blood, corpuscles, etc., and various micro-organisms. Three to six stools in 24 hours is the rule. Rarely does it reach twelve. If a larger number in 24 hours continue for a time, the case is one of unusual severity. The bowel movements are not associated with pain.

The diarrhoea occurs during the height of the fastigium, but it may occur as early as the prodromal period. Diarrhoea may be superseded by constipation or constipation and diarrhoea may be alternate.

If blood should appear in the stool during typhoid, it may be due to several conditions. It may occur from hemorrhoids or fissures of the anus, or from lesions in the intestine. In the first instance the blood is not of such great quantity, and is usually bright red. If it arises from the intestinal lesions it is more or less profuse and altered to a dark or black color, the characteristic tarry stool. I have noticed the appearance of a brownish colored mucous in the stool of a typhoid to precede an intestinal hemorrhage. If this could be proven it would become a valuable symptom. Hemorrhage usually occurs during the second week of the febrile stage. Intestinal hemorrhage, if it is of any amount, will be associated with symptoms of collapse, drop in temperature and rise of pulse, etc.

Perforation may occur in the third or fourth week. More frequently in men than in women. As a rule death ensues rapidly. Perforation is accompanied by all the symptoms of collapse and is preceded by severe abdominal pain, rapidly growing worse, associated with vomiting, and greater distention of the abdomen. The body is cold. Rarely does the temperature rise to a great height after perforation, unless patient survives and peritonitis ensues. In this case the temperature will be very variable.

These are about the most important symptoms and complications of a case of typhoid fever. There are a few minor symptoms which we meet with at times, to which we might devote a few moments.

Bronchitis is one. This, as a rule, occurs in the early stages of the disease, in the prodrome period. It is rarely associated with any expectoration. There are a few coarse rales in the chest.

Delirium is less frequently heard of at the present time than it was ten years ago. Delirium was so prominent a symptom at one time that the laity thought unless delirium was present the patient was not suffering from typhoid. If it is present, it may be in a mild form or the patient may become very violent. In severe cases associated with delirium, hemorrhage has occurred and after the hemorrhage the patient has subsequently made a good recovery, showing that the blood carried away

a large amount of the toxin, and on account of the lessened amount of toxin, a decrease in the amount of irritation by the toxin on the various cerebral centres.

The ear of the special organs of sense is most generally affected, and of the conditions produced, dullness of hearing is the most prominent. Middle ear disease is rare, and if it ever occurs is due to an extension of infection through the Eustachian tubes from nose to pharynx. Furunculosis of the external auditory canal occurs at times.

In the eye conjunctivitis is most frequent, but not so frequent as in such infections as measles or scarlet fever. Paresis of the ocular muscles has been noted, but this is rare.

I wish to mention a few more of the most marked complications besides the ones mentioned before as hemorrhage and perforation.

The most important one is pneumonia. This may be principally of two forms, a catarrhal, due to the extension from the bronchi, or the hypostatic pneumonia, due to the secretion from the bronchi filling the air sacs.

Another complication is that of albuminuria. I have experienced this in a number of cases. It is of two varieties, one a transitory condition in which the albuminuria is not associated with casts or reduction in urea. The other, which shows casts and reduction in urea denotes a marked destruction of the renal parenchyma.

Periostitis is another complication. It is one in which the patient experiences pain and principally at night. This occurs usually during convalescence. It at times results in abscess formation. It is said that the tibia is most frequently affected. I have experienced two cases in which the humerus was affected with tenderness along the shaft and pains worse at night.

Diagnosis.—I shall only mention to you two methods of diagnosis—one the Ehrlich diazo reaction of urine, the other the Widal test. No reliance can be placed in the diazo reaction, but the greatest reliance can be placed on the Widal. At some time during the course of the disease you will obtain a positive Widal reaction.

Treatment.—What can we do for a patient suffering from typhoid? McCrae in Osler's "Modern Medicine" prefaces his chapter on treatment with the following: "It does not follow that the disease in all cases requires remedies, or that a patient should necessarily take medicine because he has the disease."

What does this mean? Do only those things for the typhoid **patient** that are absolutely necessary. Many a typhoid would **recover** by simply giving him rest and proper diet. McCrae says: "Diet, nursing, and hydro-therapy are the most important measures to be considered in the treatment of typhoid."

As to rest, it is hardly necessary to say more than this; rest **should** be absolute.

What to feed the typhoid patient at times becomes one of the **greatest** problems that the physician must solve. Milk is **conceded** the ideal food. It is best given diluted with water or **lime** water; 24 to 36 ounces of milk per day is sufficient. **Osler** says: "Milk in alternation with albumen water is an **ideal** food, but there are many patients with whom milk does not **agree**, causing increased distention," etc.

For some patients, particularly children, milk becomes distasteful. What are we to do for such patients? Broths are frequently mentioned as a substitute for milk; some authorities say that the broths produce a medium in which the typhoid bacillus thrives readily. I have never found any deleterious effects from the administration of meat broths. Gelatine, flavored with orange juice, makes an ideal food, particularly for children—the gelatine liquefying at the temperature of the body. Both broths and gelatine are contra-indicated if diarrhoea be severe. A diet with which I have had success is the so-called "Angel Whisper." The yolk and white of eggs, beaten separately and then beaten together with sugar and vanilla extract, for children—it may be flavored with cognac for adults. Alcohol as food or stimulant should not be given regularly.

We find numerous methods recorded for the application of water to the typhoid patient. The application of cold to a patient is not as we would suppose primarily for the reduction of temperature, but it is principally applied as a stimulant to the circulatory system. The reduction of temperature is simply a secondary result. A patient may simply be sponged with cold or iced water at regular intervals through the day. Cold, however, is better applied in connection with slight friction. What might be classed under hydro-therapy is the application of the ice cap to the head for severe headaches or delirium.

In addition to these adjuvants just mentioned, what medicinal agents can we employ? We know the value of our homœo-

pathic remedies in influencing the course of typhoid fever. We all know how valuable bryonia has been in the early stages by relieving the headache, nose-bleed, etc., and also baptisia, rhus tox., muriatic and nitric acids in typical typhoid states. For the delirium, if such should occur, hyoscyamus, stramonium, and again bryonia. For the meteorism how valuable is terebinthina! McCrae recommends for meteorism, simple diet and plenty of water as an important preventive. He says, when meteorism occurs, treat it early and give turpentine, either by stupe, mouth, or enema, but he would not recognize the underlying homœopathic principle, although the provings show that this is almost a constant symptom in the pathogenesis of this drug. There are conditions in which more radical treatment is necessary, and in such conditions we should exercise the greatest caution in the selection of our remedy. In hemorrhage, for instance, hamamelis is indicated, but does it work quickly enough? The first thing to do in hemorrhage is to obtain absolute rest for every part of our patient. A hypodermic of morphia, 1-6 to 1-4 gr. will give the desired effect. In addition to this, an ice bag to the abdomen will prove of great benefit until the crisis has been passed. Adrenalin is recommended, giving a drachm of 1 to 1000 solution by mouth or by infusion in saline solution.

If perforation be recognized early, there is only one thing to do, and that is immediate operation. I need not elaborate on this condition.

The heart should be watched carefully. There is no tissue in the body upon which the toxin of typhoid acts with more deleterious effect than on the muscular tissues. If there should be a rise in the pulse, and the first sound of the heart be weakened, then stimulate by strychnine, 1-60 to 1-20 grain, four times daily.

Much has been said of intestinal antiseptics in the treatment of typhoid. This does not really exist. To apply agents powerful enough to destroy the bacillus in the intestines would do irreparable damage to the intestines. There is a remedy which is greatly used, and without a doubt with much benefit at times; that is salol. Salol, after it reaches the intestines, is decomposed into carbolic and salicylic acid. The small quantity of these acids acts as a disinfectant to the intestinal canal.

Frequently the stools of the patient, which are very offen-

sive, become a little more agreeable from the administration of the salol in 3 grain doses every three or four hours.

Halbert, of Chicago, claims to have gotten good results from the administration of methylene blue in one to three grain doses four times daily.

In conclusion we can say that in the treatment of typhoid three things are absolutely necessary: first, absolute rest; second, liquid diet, varying according to the requirements of the individual patient; third, water applied according to the condition of the patient. In these the physician can safely indulge in routine practice. Remedies take fourth place and here the physician must be discreet and endeavor to do only that which he deems absolutely necessary.

X-RAY IN DIAGNOSIS OF INTRA-ABDOMINAL DISEASE.—Professor Goldmann had found the X-ray of distinct service in the detection of suppuration within the abdominal cavity, of calculi in the appendix, and in the diagnosis of abdominal cancer. It has proved particularly successful in the diagnosis of subphrenic and pelvic abscess. It was found possible to determine the existence of subphrenic abscess even in the presence of empyema of the pleural cavity. In his opinion, it is of importance to determine the existence of calculus of the appendix, in view of the fact that 55 per cent. of cases of so-called chronic appendicitis, in which gangrene or perforation occurs during an acute attack, are associated with calculus. Radiography is particularly valuable in doubtful cases of appendicitis, in which the indication for operation would otherwise have to be based upon the subjective symptoms. In the diagnosis of cancer of the abdominal cavity it is necessary to accentuate the contrast between the growth and its surroundings, and this can be done by giving the patient an aperient and subsequently inflating his rectum with air, which will distend the gut as far as the ileocecal valve.—*International Jour. of Surgery, Dec. 1907.*

FLEXNER'S CEREBRO-SPINAL FEVER SERUM.—According to a news item in the *Boston Medical and Surgical Journal* for January 2, 1908, the serum upon which Flexner has been working for the past two years has now been tried clinically in sixty cases of cerebro-spinal fever, and that in no instance in which it was employed, did it prove ineffectual. This latest addition to serum-therapy seems now to be about to leave the experimental stage, and become worthy of taking a place by the side of diphtheria antitoxin as a life saving measure. More extended experience of course will be necessary to establish it on a firm footing; but this stage cannot be reached until the serum is made by manufacturers as a business proposition and is in the hands of the jury of all things medical, the general practitioner.

EDITORIAL

CHANGE OF PLACE OF THE NEXT INSTITUTE MEETING.

FROM unofficial sources we have learned that the Executive Committee of the Institute, exercising its privileges in the matter, have decided that the American Institute of Homœopathy shall hold its next annual session at Kansas City, Missouri, instead of at Oklahoma. This radical step was not taken until the facilities of Oklahoma for entertaining the Institute had been thoroughly investigated and found wanting.

We believe that the action of the Executive Committee was a wise one. At the same time, we feel that it should have never been placed in the position of being obliged to take the course it did. The situation as we view it is not a pleasant one to contemplate, and yet we must face it. It is a notorious fact that large meetings composed of men not fully conversant with the details of the subjects to be discussed are very readily led into most illogical positions by "pat" phrases presented by men of more than ordinary oratorical powers. We can recall one instance which occurred many years ago. One of the most highly respected members of the Institute, now deceased, was attacked in verbal combat by a member whose speech was full of fine phrases, but when analyzed, was practically devoid of ideas. And yet that silly speech was lauded by the masses present. The attacking party has since been discredited in his own community, and has left the medical profession—a failure. Here a man of low mental calibre was able to sway a body of men because his words jingled nicely on the ears.

Such incidents are far from uncommon. So great is the evil that we feel the only remedy is to let the voting power receive a dose of its own medicine by not interfering with its mistaken legislation. Just so long as we have a wise Executive Committee to correct the mistakes of the association, just so long will men cast their votes without thinking.

The idea of taking business matters away from the Institute at large and placing them under the supervision of a

specially appointed committee is well worthy of consideration. Matters must come to this if the electorate does not show its appreciation of the right to vote by exercising the privileges of the ballot intelligently.

(Since the above editorial was written we have received the following information from official sources.—*Editors.*)

The Executive Committee of the Institute met January sixth at the office of the Secretary, five members being present and Dr. Reily being represented by a written report and proxy. The President and First Vice-President reported having visited Oklahoma City, spending Dec. 30th and 31st in investigating its merits as a meeting place. They were cordially received and cared for by the chairman of the local committee and the other three members of the local profession.

As a result of their investigation, the Executive Committee, by unanimous vote, deemed it necessary to exercise the authority given to change the place of meeting.

In determining this problem, the Executive Committee of necessity counted upon a meeting of normal size. Our Oklahoma friends are sure the attractions of their community would draw even more than the usual attendance. For six years past the average of members and visitors has been 875. If half this number were to attend a meeting at Oklahoma City it was found it would be impossible to give to all comfortable hotel accommodations. There are but two, so-called first-class hostelrys in the city. The Lee, the leading one, is building a seven story annex, which, as yet, is far from completion. It has been expected that this hotel would furnish headquarters and committee-rooms. At Jamestown special rates and accommodations based on contract agreement, were promised at the Lee. The proprietor of this hotel, in contradistinction to all other citizens of the city, showed the members of the Executive Committee scant courtesy and refused to accede, in the slightest degree, to their wishes or necessities of the Institute. Not until after the departure from the city of the committee did the local chairman and the Board of Commerce wring unwilling concessions from this proprietor. Even then the rate proposed was far in excess of the contract agreement related at Jamestown and

stipulation was made that no committee rooms be used in the evening.

Not only were the proposed arrangements unsatisfactory, but also the accommodations possible far from adequate. Contingent upon the completion of the annex and contemplating, too, that at least two people should occupy each room, quarters for not to exceed two hundred guests was the most favorable promise of the Lee. Under similar conditions a hundred and fifty guests might be crowded into the second hotel. Bath rooms, much needed during dusty Oklahoma June, are scarce in both hotels. Were the attendance of members, visitors and exhibitors to exceed three hundred and fifty, the second-rate hotels and the boarding houses would have to provide for the balance.

The "White Temple" proved unavailable, except possibly for the opening session. It was found that the meetings would have to be held in different places, more or less remote from each other. It would be impossible to have all the sessions of the Institute, its bureaus and committees, the allied societies and exhibits under one roof. The comfort of the places proposed, too, would largely depend upon the temperature and barometric conditions, said to be decidedly objectionable in summer.

The usual reduced rates on the railroads are no longer available because of the new Interstate-law. The distance of Oklahoma City, nearly four hundred miles from Kansas City, would make this absence of a special railroad rate a material burden to most of our members. The three general passenger agents met at Oklahoma could promise nothing, unless the journey were begun on Wednesday for our Eastern members and on Thursday for the middle west, with no concession at all for the far west.

For these reasons and others which were discussed for hours by the Committee, it was thought best to have our meeting elsewhere. Invitations came from Hot Springs, Pittsburgh, the State of Pennsylvania, Los Angeles and Detroit. In view of the fact that the American Institute had recognized the justice of the demands of the West and South-west, the proffered invitation of Kansas City was, therefore, accepted and it was decided to hold the meeting there during the week beginning June 22nd.

It were perhaps a work of supererogation to speak of the

beauties and attractions of this wonderful city. **Commercially**, physically, aesthetically, it is second to none in these **United States**. The combined population of Kansas City, **Missouri**, and Kansas City, Kansas, separated simply by an **imaginary** line, is nearly four hundred thousand. The **municipalities** form one great, restless, aggressive, progressive, **beautiful** city. Here are vast hotels, gorgeous theaters, great **churches**, palatial homes, wide gardens, inviting shade and **cool** retreats.

The trip to Kansas City is easily and quickly made. It is a **night's** journey, twelve hours from Chicago, eight hours from **St. Louis**, over night from **Denver**, and can be reached from **New York City** with but one night on the sleeper.

THE VALUE OF VACCINE THERAPY IN PRACTICAL MEDICINE.

Strange as it may seem, despite the numerous and important **contributions** the science of bacteriology has made to diagnosis and to preventive medicine, it has contributed but little to the **sphere** of curative medicine. The therapeutic application of **bacteriological** facts has at last been developed through the **work** of Sir Almroth E. Wright in the treatment of bacterial **diseases** by vaccines.

The principle underlying vaccine therapy, is, according to **Wright**, the stimulation of the protective machinery with which the **body** is equipped. Immunity to bacterial infection and the **natural** cure of bacterial diseases is dependent upon the ability of the **tissues** of the body to form substances destructive to the **bacteria** and antidotal to their toxins. Among these protective substances we have bacteriolysins, agglutinins and opsonins. The latter is the only one whose amount we are able to **determine** for clinical purposes at the present time. It is **probable**, however, that the other substances vary directly with the **opsonic** content of the blood, so that the opsonic index is a **fair** criterion of the individual's resistance to bacterial **infection**.

In carrying out the treatment of a case of bacterial infection by the specific vaccines of Wright it is necessary to determine **first**, the specific organism that is causing the pathological **condition**. Having determined the organism present, whether the **streptococcus**, the gonococcus, the pneumococcus, etc., we can

pursue one of two courses. The first, and, according to Wright, the preferable method, is to grow a pure culture of the germ we have isolated, suspend the growth thus obtained in salt solution and heat to 60° C. This amount of heat is sufficient to kill the bacteria but not to cause chemical protoplasmic changes. This suspension of the dead bacteria in salt solution is then standardized and constitutes the specific vaccine for the case from which the bacteria were obtained. Vaccines thus made from the identical organisms isolated from the patient are known as "personal" vaccines. Where it is impracticable or impossible to prepare a "personal" vaccine, we may, after determining the infective organism present, pursue a second course and use a "stock" vaccine. A "stock" vaccine consists of a suspension in salt solution of the same kind of organisms as those found in the patient, but derived from another source. The advantages of the "stock" vaccines are that they can be kept on hand and used at a moment's notice, and, in addition, they save the physician a great deal of time and labor. The trend of opinion among investigators seems to be that they are not nearly so reliable as the "personal" vaccines and are only to be used where it is impracticable to obtain the "personal" vaccine.

The size and interval of the dose varies in different individuals and in different diseases. Wright's method of controlling the dose is by repeated observations of the opsonic index. Immediately following an injection of vaccines there occurs a fall in the opsonic index of the patient, followed by a rise which lasts three or more days. When the index begins to decline again, Wright administers another dose of the vaccine. This method of controlling the dose requires much time and skill and other methods of control have been advocated. The most rational of these is what is known as the "clinical" control, advocated especially by Trudeau. According to this method the treatment is begun with a very small dose of the vaccine and the dose gradually increased until there are beginning evidences of a reaction as shown by an aggravation of the clinical symptoms. When this dosage is reached, any further increase must be made very gradually as marked constitutional disturbances are to be avoided.

The class of diseases in which vaccines are recommended for therapeutic purposes is a large one, including as it does all diseases due to localized bacterial infection. Wright claims

to have employed them successfully in the treatment of acne, lupus, puerperal septicemia, tubercular adenitis, pulmonary tuberculosis, boils, carbuncles, rheumatic fever, empyema, cystitis, necrosis of bones, suppurative inflammations of the accessory nasal sinuses, gonorrheal rheumatism and infected wounds.

It is too early to attempt to assign any definite place in therapeutics to the vaccine treatment. The subject is still in an experimental stage and while we are justified in regarding it with an attitude of hopeful expectation, it is too early to assume that the problem of combatting bacterial infection has been completely solved. At the present time we must depend for our data largely upon the reports of Wright and his students who are naturally enthusiasts. More extended clinical experience is necessary to confirm or to disprove their results.

From the standpoint of the medical practitioner the method has many difficulties and disadvantages. A great deal of technical skill is necessary to properly determine the opsonic index of a patient. In some diseases, notably in tuberculosis, it has been shown that determinations of the opsonic index of the same specimen of blood by a number of skilled laboratory workers varies so widely as to render the results of little practical value. It is possible that improvements in the technique may remove this objection.

As to controlling the size and interval of the dosage by daily determinations of the opsonic index, such a method is positively impracticable except in hospitals. In private work two cases of acne or boils would keep the practitioner busy the entire day. It is probable, however, when more experience has accumulated concerning the vaccine treatment that we will be able to determine the proper dosage by careful observation of the clinical symptoms. Let us hope, for the sake of humanity, that one-half of Wright's claims as to the efficacy of the vaccine treatment may prove to be true, but, while waiting the result of investigation, let us not forget that the most reliable anti-toxic and antibacterial agents that we have at our command up to the present time are rest, fresh air, proper food and the indicated homœopathic remedy.

THE CLINICO-PATHOLOGICAL SOCIETY.

We have the honor of publishing in the present issue of the *Hahnemannian Monthly* a series of papers read before the Clinico-Pathological Society of Philadelphia. Presenting as they do a variety of subjects treated in a thoroughly scientific and practical manner, they well represent the character of the work the Society is doing.

The Clinico-Pathological Society had its origin in the Saturday Night Club of Microscopists at the office of Dr. Jos. C. Guernsey, on December 8, 1894. Beginning in a small way, the club interested its members from the start. Dr. Guernsey became its President and active leader, and has remained so to the present time.

In November, 1904, Dr. Guernsey conceived the idea of re-organizing the club on broader lines, and through his activity and zeal, and the enthusiastic work of Drs. Jno. J. Tuller and Samuel W. Sappington, the new society, The Clinico-Pathological was formed. This has been a success from the start, and soon attracted to its membership a large percentage of the progressive homœopathic practitioners of Philadelphia.

The meetings of the Society differ quite a little from those of the average medical organization. But little time is devoted to business matters, and absolutely none to parliamentary tactics, the entire evening being given up to the scientific work. The officers have been most successful in carrying out their idea of making the work of the Society as practical as possible. In addition to papers dealing with the various aspects of clinical medicine, surgery and pathology, the presentation of specimens and the demonstrations by the microscope occupy a large portion of the evenings. The discussions are entered into with spirit and have proven most instructive and helpful to the members. The meetings of the society are open to all physicians, and it has been the policy of Dr. Guernsey and his colleagues to extend the courtesy of the floor to all visitors.

The Clinico-Pathological Society has been a phenomenal success. This we believe to be due to the broad principles upon which it has been founded, and to the fact that every man who attends the meetings goes home with some new knowledge and with an ambition to be more progressive and scientific in his medical work than ever before.

This is the kind of organization that our profession needs, and **we** trust that the example of the Clinico-Pathological Society **may** be emulated by the formation of similar organizations **in** all of the large cities of our country. We believe that very **few** can present such a coterie of excellent papers as those making up this number of the Hahnemannian Monthly.

We **trust** that Dr. Guernsey's recommendation that the Society **employ** an official stenographer will be adopted and that we **shall** have many opportunities for publishing the proceedings **of** the Society.

DIAGNOSIS AND TREATMENT OF RENAL LITHIASIS.—Professor Kümmel (Congress of the German Society of Urology) distinguishes two groups of cases, the aseptic and infective. In the former the symptoms may not occur **until** the stone begins to move about. On the other hand, if an infective condition develops the predominant symptoms are those of pyelonephritis. The three chief symptoms of renal lithiasis, hematuria, pain, and passage of calculi, are only exceptionally present. Large aseptic calculi may cause no symptoms, but often give rise to pain, which is dull, continuous, or very distressing, while small stones cause attacks of renal colic. One of the most reliable diagnostic symptoms is hemorrhage, the source of which can be determined by cystoscopy, especially if a coagulum is found to be protruding from a ureter. Radiography is of great value and is feasible in most cases. Ureteral catheterization and cryoscopy are very important auxiliaries in determining the functional capacity of the kidneys.

In regard to the indications for operation, cases which are presumably uninfected and in which pain and hematuria are not marked, or at any rate occur at long intervals, may do well under regulation of the diet and the use of mineral waters. On the other hand, if the attacks of colic are frequent and the hemorrhage profuse, early operation is demanded in order to avoid injury of the renal tissues by the calculus and the possibility of occlusion of the ureter. If radiography shows the presence of only small concretions an expectant plan may be adopted. In cases in which the calculi are infected, operation is indicated, and this also applies to cases in which hemorrhages are very profuse. In anuria due to impaction of the calculus an attempt should first be made to dislodge it by means of abundant drinking of water, slight massage, and careful injection of oil into the ureters. It is advisable, however, to not spend too much time with such measures, as the prospect of a cure is not very promising. As to the author's statistics, in ninety operations for renal lithiasis there was a mortality of 3.3 per cent., the three deaths being in cases of infected calculi. In eight of the forty-four cases of infected calculi a secondary nephrectomy was necessary. To detect all the concretions present, the best method is nephrotomy. Special care should be given to hemostasis.—*International Jour. Surgery, Dec. 1907.*

GLEANINGS

POSTOPERATIVE THIRST.—While postoperative thirst is not so distressing after hyoscine-morphine anesthesia as under the old ether and chloroform narcosis, it still is a matter of importance, particularly in abdominal surgery, where it is often desirable that twenty-four hours shall elapse before anything is taken into the stomach. It is especially pronounced when there has been great loss of blood, unless the normal amount of serum has been partially restored by hypodermoclysis. To overcome this thirst a liter (one quart) of water may be injected into the rectum or colon, unless some special contraindication exists; preferably just after the patient has been returned to bed. When thirst becomes urgent, moistening the lips and tongue frequently with a cloth dipped in ice-water is a most comforting expedient; but the patient should not be permitted to suck ice, since holding bits of ice in the mouth above all other things increases the tendency to vomit. Later a little juice of lemon may be permitted—it helps to appease thirst remarkably. In ordinary cases a teaspoonful of water every fifteen minutes may be given after the first four or five hours; in abdominal sections after twelve hours unless vomiting occur—if so, twenty-four hours must be allowed to pass before a drink is permitted. When thirst causes great restlessness and nervousness, a capsule of five grains of chloretone with a little sip of water seems to give great relief. After twenty-four hours, if vomiting does not occur, cold water may be allowed freely save in the most exceptional cases—as where there is too free drainage from the abdomen.—*Ther. Gazette*, October, 1907.

DANGER TO DOCTORS.—It seems that the greatest danger the doctor has to contend with is not contagious disease or stress of weather or the night highwayman, but that it is woman, designing, malicious women, either disgraced, about to be, or desiring to be. In looking over the reports of deaths among physicians, comparatively few are reported to be from contagious diseases. A reputable physician of Detroit has recently undergone an experience which makes the average doctor shudder and look about for a chaperone. Dr. E. L. Emmons was called to visit a patient whom he had never visited before. He found her in a boarding house complaining of the symptoms of a hard cold, for which he prescribed. He did not hear from her again till a week or so later, when he read in the papers that the woman had accused him of procuring an abortion on her. She was a janitress and was found by another physician suffering from sepsis due to a blundering attempt to procure an abortion. Another physician was called in and the patient removed to the hospital. The prosecutor's office was notified and the assistant prosecutor and a stenographer hastened to the bedside to take the ante-mortem statement. The priest having administered the last sacrament, facing death and in the presence of several witnesses, she said that Dr. Emmons had performed the operation, named the

time, place and fee. But she did not die. A month later the case was brought to trial and instead of the ante-mortem statement the woman herself was on the stand. On cross-examination she broke down and admitted that Dr. Emmons knew nothing at all about the case or her condition. She said she thought that she would be sent to prison herself if she did not accuse some one. Think of the fate of Dr. Emmons had she died with this awful lie upon her lips. Laws should be passed making it a crime to solicit a physician to commit an abortion as well as to offer a bribe, and the laws should be made to better protect physicians from blackmail and accusations of this kind.—E. S. M. in *Am. Med. Compend.*

IS TOBACCO SMOKE POSSESSED OF ANTISEPTIC PROPERTIES?—This is a very prevalent idea in existence among the laity, and to some extent in the minds of members of the medical profession, that the smoking of tobacco, during or after exposure to those infectious diseases which find their entrance into the body through the respiratory passages, distinctly diminishes the chance of infection. We therefore have read with a great deal of interest an article which has been published in the London *Lancet* of May 4, 1907, by Dr. Arnold, of Manchester, England, who has carried out a research with the object of reaching some conclusion in regard to this matter. Arnold points out that a bactericidal power in tobacco smoking is supposed to exist by any practitioners. He therefore carried out a series of investigations to determine whether the smoke of tobacco had any more protective influence than some of the other forms of dried vegetable matter which did not contain toxic organic bodies, and he selected ordinary hay as a control for his experiments. He found that the smoke of both hay and tobacco possessed distinct bactericidal power. The organisms tested were the bacillus of diphtheria, typhoid fever, the colon bacillus, and also the staphylococcus pyogenes aureus, and on one occasion the streptococcus isolated from the blood of a case of scarlet fever. All of the experiments with the exception of those upon the streptococcus were repeated five times, and different grades of tobacco were employed, from cheap navy cut to one of the more expensive mixtures. No difference in the activity of these various grades of tobacco was noticeable. About one-twelfth of an ounce of tobacco was used in each experiment, and the exposure lasted for five minutes. He found that the bacillus of diphtheria was always markedly affected. Sometimes it failed to grow at all after the exposure to tobacco smoke, and sometimes there was a slight growth. This occurred when this bacillus was exposed to either the smoke of tobacco or hay. On the typhoid bacillus the smoke from hay seemed to exercise more effect than the smoke from tobacco. The same fact held true to some extent with the colon bacillus. The staphylococcus was scarcely affected by tobacco smoke and but slowly affected by hay smoke. Curiously enough the streptococcus seemed to be completely destroyed.

Arnold therefore believes that tobacco smoke drawn into the mouth is very probably detrimental to the growth of some pathogenic organisms, but not more than the smoke from other sources, and he quotes a research made by Tessinari, who reached similar conclusions after passing tobacco smoke over cultures of various pathogenic germs, such as those of Asiatic cholera and pneumonia. This investigator also found that tobacco smoke

passed through water killed the "yellow bacillus." Trillat believes that the antiseptic influence of the smoke depends upon the presence of formaldehyde, since he found that 100 grammes of tobacco yielded 0.063 gramme of formaldehyde, and that some cigars gave as much as 0.118 gramme in 100 grammes of tobacco.

This research of Arnold's is, we think, of very considerable interest to those practitioners who are in the habit of commonly using "the much-abused weed," but the author is evidently afraid that he may be attacked by the antitobacco party, for he somewhat quaintly observes that while he believes that tobacco smoke is detrimental to the growth of germs he desires to make it clear that he states this fact as an observation and not as an argument in favor of the use of tobacco.—*The Therapeutic Gazette*.

THE TREATMENT OF TETANUS.—Dr. J. Norman Henry reports *International Clinics*, 17 series, Vol. IV, four cases of tetanus treated by the intraspinal injection of magnesium sulphate, with the result of curing one. While the outcome of these cases was poor as percentages go, still the fact that one case recovered is cause for congratulation. The author expressed himself as pleased with the treatment, in that the injections lessened the spasms to a marked degree and gave the patient great comfort; this result in an incurable disease is, of course, satisfactory to a certain extent. The question is raised in our minds as to the possibility of harm being done by them, for suppressing symptoms is by no means curing the case. If we start with the idea that the case is incurable, then any palliation we may secure is valuable.

So far as our experience goes, we believe that the best treatment for tetanus when fully developed is the Bacilli injection of carbolic acid in two per cent. solution along the spine, giving 30 minims at a time, and repeating the injections at intervals of two to four hours. We have used the tetanus antitoxin in several cases, all with unfavorable results. The magnesium sulphate injections we have never tried.

The general consensus of opinion among those best competent to decide, favors the use of the tetanus antitoxin as a routine measure in all cases of punctured wounds in which there is a possibility of tetanus developing. Given thus it most assuredly has a prophylactic value of great merit. The tetanus toxins seem to enter into such firm union with the nervous tissues as to make it inoperative after the development of the disease.

Along with the prophylactic injections, we should practice surgical prophylaxis, i. e., by excision of the wound and thorough cauterization with pure carbolic acid.

HAS A PURIN FREE DIET ANY THERAPEUTIC VALUE?—Among the many problems demanding solution is that of relieving symptoms of auto-intoxication. The uricacidæmia furor has had its run, and is all but moribund. Of late years, much has been made of ridding the daily diet list of foods containing the purin bodies, but this likewise bids fair to become a matter of the past. It was with interest, therefore, that we read the paper with the above title by Dr. Chalmers Watson in the *British Medical Journal*, December 21, 1907. The foods specified by the author as rich in purin bodies are meat and meat extracts, pancreas, liver, beans, lentils, and

oatmeal. Foods comparatively free from purin bodies are milk, eggs, white bread, rice, fats and fruit. The author admits—indeed he even quotes—cases in which a purin free diet has done much for patients suffering from chronic disease, but when he comes to analyze them, he reaches the conclusion that the favorable result was due not to the purin exclusion, but to proper regulation of the diet as to proportion of proteids and carbohydrates, and attention to the function of the organs of elimination, as the bowels, kidneys and the skin. He reaches his conclusion as the result of a careful study of 60 cases in private practice. In some cases, the restriction in amount of animal proteids is of special value, in others, the diminution in the carbohydrates, and especially the sugars is equally efficacious, and in others, the restriction of various alcoholics will suffice. The points which should guide us in framing the dietary can only be laid down after the consideration of all the available clinical facts in each case. The author found that the dietary of his patients often needed no qualification whatever. Complete relief from gouty symptoms was obtained by attention to the functional activity of the liver, kidneys, skin, bowels, and thyroid gland.

HERPES ZOSTER PECTORALIS; TREATMENT OF.—In the *Columbus Med. Jour.* of May, 1907, Shoemaker suggests the following treatment in Herpes Zoster. A solution made up of the tincture of opium two oz., absolute alcohol three oz., and water sufficient quantity to make sixteen oz. Cheese cloth is to be applied to the affected area which is to be kept continually saturated with the above solution. Shoemaker contends that this solution produces a cooling as well as an anodyne effect; and as well assists in the drying of the vesicles and shortens the duration of the disease. Shoemaker further advises that the bowels be thoroughly cleansed with a calomel purge, followed by a saline purge. Diaphoretics, opiates (bromides or chloral) are occasionally necessary to stimulate the skin to its normal function and to relieve pain.

RALPH BERNSTEIN, M. D.

FURUNCLES, ABORTION OF.—According to Vikentiec in the *Rev. prat. de obstet. et de gyn.*, furuncles may be aborted by first rubbing the affected area with tincture of green soap and then washing it off with a solution of alcohol fifty per cent. in strength. A compress made of absorbent cotton is saturated with alcohol and then applied to the affected part and kept in place until all of the alcohol has evaporated. Tincture of green soap is once more applied, the lather being allowed to remain to dry, which remains uncovered.

RALPH BERNSTEIN, M. D.

IMPETIGO, TREATMENT OF WITH HYDROGEN PEROXIDE.—In the *Jour. de Med. de Paris*, Carriere proposes the following treatment for the cure of Impetigo in less than five days, sixty per cent. of the cases recovering within this time. He suggests that the crusts be first removed by the use of a borated potato starch poultice or by means of salolated compresses of gauze moistened with a decoction of walnut leaves, a covering of rubber cloth is then applied which is renewed four times daily. After the crust

has been thoroughly removed, ten volume hydrogen peroxide is applied by means of gauze compresses which is covered with rubber. The treatment is renewed daily, and treatment may be accelerated by disinfection of the intestinal tract with small doses of calomel.

RALPH BERNSTEIN, M. D.

SCABIES, CURE OF IN ONE AND A HALF HOURS.—Sabouraud in the *Bull. gen. de therap.* suggests the following treatment for a quick cure in the treatment of scabies. Tincture of green soap or soft soap is rubbed into the patient's body for at least half an hour, which procedure is followed with an alkaline bath for thirty minutes. The following ointment is then to be well rubbed in. Oil of verbena, gum tragacanth, of each, one part; precipitated sulphur one hundred parts; glycerine two hundred parts. Another bath is then given lasting from fifteen minutes to twenty minutes. Complete disinfection of clothing, body and bed linen must be insisted upon. During the two weeks following this line of treatment, four starch water baths are given. Oxide of zinc is used in cases of severe irritation.

RALPH BERNSTEIN, M. D.

PARINAUD'S CONJUNCTIVITIS.—The writer, after reviewing the reported cases, cites a case of his own. A boy of eleven years of age presented himself with a slightly inflamed eye of two weeks' standing. One week after the onset, the lids and the corresponding side of the face began to swell, until at the time of examination there was found a marked swelling of the lids of the left eye and of the whole side of the face. Conjunctival injection with chemosis to the temporal side was present. Eversion of the upper lid showed large polypoid vegetation of the conjunctiva over the tarsus and in the fornix, more numerous in the outer half, whilst there were none on the lower lid, although the conjunctiva was inflamed. There were three pin-head sized ulcerations between the granules on the upper lid. A slight marginal keratitis was present. The parotid, preauricular and submaxillary glands were enlarged and painful. The opposite side of the face was **normal**.

A culture showed the xerosis and subtilis bacilli to be present. Treatment consisted of one-fifth of one per cent. solution of nitrate of silver with a boric acid lotion. The lids became more edematous and the granulations more prominent. The glandular swelling increased and the pain was marked, with inability to masticate or sleep. Silver nitrate one per cent. was now applied to the granulations and anti-thermoline used externally. This afforded relief, so that four days later the swelling was markedly less. About two weeks later there remained but a slight swelling of the parotid gland, the lids and the eye being normal.—Dr. J. F. Shoemaker, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

OCULAR DISTURBANCE DUE TO PRESSURE UPON OR STRETCHING OF THE CERVICO-DORSAL SYMPATHETIC.—The writer reports three cases in which the visible ocular symptoms were the same, and in which the subjective symptoms varied only in degree. The objective ocular picture and the subjec-

tive symptoms are both the result of chronic disturbance of the cervico-dorsal sympathetic. The cases all complained of inability to use their eyes with comfort in reading, writing or sewing. There were no visible changes in the fundus, and correcting glasses for refractive errors produced normal vision. In none of the cases did correcting glasses give comfort. In some ciliary spasm was marked, and in others photophobia was complained of. In all except one there was cervico-spinal curvature. The writer does not attempt to explain the production of the symptoms; he believes that we have to deal with either partial paralysis or chronic irritation from stretching or pressure of the oculo-spinal sympathetic. He has had no opportunity to determine in what proportion of cases of lateral curvature of the cervico-dorsal spine the ocular symptoms described are present. That they are present in some cases is important, for the recognition of the cause of their production serves to explain why treatment applied to the eye fails to give relief.—*Dr. John Dunn, Archives of Ophthalmol.*

WILLIAM SPENCER, M. D.

A CASE OF MONOCULAR OPHTHALMOPLÉGIA INTERNA AND EXTERNA, WITH PARALYSIS OF THE ABDUCENS AND TROCHLEARIS.—The author reports a case which is of interest because of its complete recovery and because it shows the possibility of a lesion causing pressure in the superior orbital fissure and compressing adjacent structures without involving the optic nerve.

A brief history of the case follows: The protrusion of the eye came on suddenly, there was pain day and night, most severe at night. The diplopia lasted more than seven weeks, the fundus was normal and also the vision, except that at one examination there was a spasm of the ciliary muscle which produced a myopic refraction. Contrary to the rule there was intense neuralgia. The gradual implication of the muscles is of interest; first, a ptosis, three days later an ophthalmoplegia externa; five days after this, an ophthalmoplegia interna; followed after an interval of three days, by a paralysis of the superior oblique and external rectus and marked exophthalmus. It was remarkable how quickly all pain subsided after anti-syphilitic treatment was begun. The cause was probably a gummatous process in or around the superior orbital fissure, which produced pressure. From a review of the cases reported the prognosis appears to be very favorable when syphilis is the cause. The writer's patient made a complete and perfect recovery within two months.—*Dr. Otto Landman, Archives of Ophthalmol.*

WILLIAM SPENCER, M. D.

THE PASSAGE OF SPIROCHAETAE FROM MOTHER TO CHILD.—Wersilowa has examined various points along the passage between the mother and child, including the placenta, umbilical cord, liver, heart and other organs of the child. The author describes one case where the mother had no apparent symptoms of syphilis and gave birth to triplets, the first of which was macerated, the second living a few hours, and the third a few days. The first two had distinct symptoms of syphilis, (Pemphigus, papules) and the third epistaxis syphilitica and debility. The author examined the placenta, umbilical cord and organs of the first and second children; the third was not examined. In sections stained with azure-eosin the spirochaetæ

were demonstrated. An unusually large number of spirochætae were found in the placenta and cord; in the spleen there were many partly destroyed spirochætae. The author comes to the following conclusions: *Spirachæta pallida* occurs in syphilitics, and in children syphilitic by heredity. They may pass from mother to child through the placenta and cord. *Spirochæta pallida* occur in the placenta, the umbilical cord and organs of the child, even when there are no symptoms of syphilis in the mother.—Abstr. from Russian in *Zentralbl. f. Gyn.*, 1907, 1220. THEODORE J. GRAMM, M. D.

QUININE FOR HASTENING LABOR PAINS.—Conitzer (Hamburg) reports his experiences with this drug. He tried the remedy in 39 cases of abortion, and in 27 cases of premature labor and labor at term. In 13 of the cases of abortion its action was negative, and in 26 cases its effects were more or less pronounced, though in half of these cases some other procedure, like rupturing the membranes on removal of the placenta, was necessary. The drug was used in doses of $7\frac{1}{2}$, 11 and 15 grains, repeated so that in all from 15 to 45 grains were given. The action of the drug was often apparent within ten minutes after the first dose, but mostly after the second or third dose. The characteristic effect of quinine is that the labor pains follow each other at regular intervals without much pause. The drug sometimes induced tinnitus or transient deafness, and occasionally vertigo and nausea. In 11 cases having fever, the drug acted favorably in 6 instances, and failed in five, and in two of the latter it removed the fever but did not excite the pains. It is interesting to note that in two cases in which the drug was used on two occasions, it acted in the individual just as on the former occasion, namely, in one patient the drug failed twice, and in the other case it acted twice. This leads the author to question the cause, and since no other explanation presents, he explains the effect as due to idiosyncrasy. The older authors thought that delicate and nervous women were predisposed to its action, but this could not be confirmed. Conitzer thought he observed quinine to act best in cases of dead fetus, or where pain was present for weeks with a dirty brownish or yellow discharge which suggested a partial separation of the ovum; or finally when the membranes were still intact but the cervix dilated to admit the finger. In retained placenta the drug was not efficient.

In 22 cases of labor at term, the drug was administered 18 times because of ineffectual pains in the stage of dilatation, and 4 times on account of cessation of labor. Of the 18 cases just named, in eight instances the action was negative in so far as while the pains increased, the dilatation was not hastened; in 10 the action was prompt and satisfactory. In the 4 cases receiving the drug during the expulsive stage, the effect was pronounced. From these observations, the author says, while he is not enthusiastic over the use of quinine, it is for all a remedy to be recommended. In those cases in which in spite of continued labor pains with intact membranes, the os uteri does not dilate, quinine is not applicable, but the sovereign remedy is rupture of the membranes; neither is quinine indicated when the labor is impeded by swelling or crushing of the cervix, nor when the indication exists for instant delivery. Aside from these contraindications the drug will often obviate the necessity for dilating procedures and the use of forceps.—*Arch. f. Gyn.* Vol. 82, 349.

THEODORE J. GRAMM, M. D.

THE ETIOLOGY AND TREATMENT OF PELVIC EXUDATES.—Cohn, Giessen. Cohn's article presents a further contribution to conservatism. He says since we have learned to differentiate pelvic suppurative processes as affecting the adnexa, as producing intraperitoneal exudates, and as suppurations of the pelvic connective tissue, we have also learned that these several conditions require different treatment. Purulent conditions which have become chronic they have continued to treat by radical procedures, and operators only differ as to the best means of access, whether through the vagina or through the abdominal walls. On the other hand, recent adnexal inflammations, intra peritoneal exudates and in pelvic connective tissue suppurations, conservative procedures have given good results. In cases requiring evacuation of an abscess, incision and subsequent drainage has proven entirely satisfactory, and as regards permanent results has been better than the radical operation. It is to the credit of Winckel, during the height of popularity of the radical operation, to have advocated the conservative treatment of suppurations within the pelvis. Our theoretic knowledge of the pathology of pelvic exudates is also largely dependent upon Winckel's classic paper. In Pfannenstiel's clinic the conservative method of treatment of pelvic exudates has been extensively applied and has proven satisfactory. The results of other clinics have also confirmed this. In cases in which because of rising temperature and pulse rate, aggravation of the general condition and lastly the existence of fluctuation, have required evacuation of the exudate, they have made an incision, depending upon the location of the pus, either through the abdominal walls, generally above Poupart's ligament, or through the posterior vault, using for the purpose either the knife, scissors or thermocautery. The abscess cavity was drained mostly by means of gauze, changed daily, and frequently irrigated with 3% solution of hydrogen peroxid. They have given attention to exactness of diagnosis. If the purulent process is within the tube, when it is mostly gonorrhœal in character, they refrain from incision in order later when the process has become chronic, to do the radical operation. If the pus collection is intraperitoneal or situated in the pelvic connective tissues, as indicated by the temperature curve and the general systemic condition, they incise early in order to limit a diffusion of the process. It is best not to wait for fluctuation if the diagnosis can be established. A valuable diagnostic measure is the exploratory puncture, especially in distinguishing between retrouterine exudates and hemocele. The author continues his article with an interesting account of the bacterial findings and cites a number of cases illustrating the views expressed.—*Arch. f. Gyn.* Vol. 82, 695.

THEODORE J. GRAMM, M. D.

THE METHOD OF BIER IN GONORRHOEAL RHEUMATISM.—Harvier, in a communication to the French Medical Congress recently held at Paris (*La Clinique*, November 1, 1907), reported excellent results which he had obtained by the induction of artificial hyperæmia by Bier's method in eight cases of gonorrhœal rheumatism. It exercises an action which is at the same time analgesic, resolute and autothermic, both in acute and in sub-acute cases. The analgesia thus obtained permits early mobilization of the joints, and thus prevents consecutive ankylosis or stiffness. In chronic forms its resolute action is manifest.—*Med. Rev. of Rev., Dec., 1907.*

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

A PECULIAR CASE. By J. M. Fulton, M. D., Audubon, Ia. C. McL., *et* al., always of a nervous disposition and has always suffered from nocturnal enuresis.

During October, 1906, he accidentally stepped from a wagon, injuring the bones of the pelvis. A weight was attached to the leg on the side of the injury, and he seemingly made a good recovery. After a time, however, before the first of the year, the pulse began to beat rapidly, 100 to 140 per minute, and the eyes began to bulge, the thyroid gland not being changed in any way. A number of physicians saw him, and all diagnosed the case as exophthalmic goitre, as no doubt it is.

I saw him on February 21, 1907, with all the above symptoms aggravated, also eversion of the left eyelid. Very great pain in frontal and temporal bones, which are greatly distended, along with the distention of the eyes.

Added to these symptoms was the loss of power in both lower extremities, involving both micturition and defecation.

At about this time Doctor George Royal, of Des Moines, saw the case with me. Ferrum phosphoricum, Belladonna and Thyroidin 3x have been the remedies he has taken since I saw him, and which have reduced the inflammatory condition very much, and the head and eyes are not swollen nearly so much. He has also had along with the indicated remedies the application of the galvanic and Faradic current, two and three times a week.

The most troublesome condition now is the paresis. There is both loss of sensation and motion. Appetite is good, but enemas must be given to cause the bowels to move. The urine has been examined but it only contained an excess of earthy phosphates. He has no pain now.—*Medical Century.*

RESULTS OF OPSONIC THERAPY. Cures and improvements are common in the literature. In some instances, astonishingly rapid cessation of infective processes are noted. This seems to apply to chronic, indolent infections rather than to more acute conditions. It must be remembered, however, as in the practice of any newly acquired art, one is apt to find only the triumphs of that art recorded. The failures are conveniently forgotten in the exhilaration resulting from unexpected and unusual success. But when all allowances have been made for the unreported failures,

there is an encouragingly long list of known cures and improvements following administration of "autogenous" vaccines according to the theory of opsonins. While the results are far from being conclusive, it seems as though a new epoch might safely be prophesied as dawning in the history of medicine,—an era of certainty in the treatment of disease due to infection, a time when there will be less haphazard striking towards the causes of disease. Vaccine therapy is certain to become very general, both in treatment and in prophylaxis. But the day is, as yet, far distant when we can conscientiously and safely inoculate trusting sufferers with bacteria and bacterial products. What we at present need, is more investigation and less enthusiastic, and frequently misguided, therapy. The way towards this therapeutic Arcady is at present but incompletely blazed. Investigation calls for patients, to be sure, but such patients should be fully informed as to the limitations of the procedure, and should only be treated by men who are in position to watch carefully the consequences of inoculation by vaccines. The promiscuous injections of "autogenous" vaccines should be discouraged. This is necessary in order to prevent failure, disappointment and the therapy from falling into disrepute, with both laity and practitioners. And lastly, there should be greater frankness—shall we call it 'honesty?'—between laboratory worker, clinician, and practitioner. Then, whatever ground is gained can be held, the way will be clear for future advances, and our literature will not be burdened with premature, and frequently, misleading effusions.—*Progress*.

JUSTICIA ADHATODA. Sarat Ch. Ghose, M. D., in *Progress*.
The above cases will convincingly prove that justicia adhatoda is truly homoeopathic in its modus operandi. It should play an important part in the disorders of the respiratory system. In coryza it will be found highly curative where sneezing will trouble the patient. In whooping cough I have the greatest confidence in it as long as, or whenever, catarrhal symptoms are marked. The cough of justicia is incessant and severe. The chest seems pregnant with phlegm, and there is audible rattling of mucus, but very little is expectorated or it is loosened only with repeated hawking. The expectoration consists of tough, yellowish mucus.

The cough of justicia is sometimes dry, spasmodic, constricted. There is a violent degree of dyspnoea associated with the cough. So much so that there is great fear of threatened suffocation. In whooping cough the child loses breath, turns pale, stiff, and blue there is rigidity of the body. There is usually vomiting with the cough and no food or drink is retained by the stomach. It has also great loss of appetite and there is also obstinate constipation in the bargain.

Justicia has some influence upon the hepatic system. In functional derangements of the liver it is certainly an excellent remedy.

In the first stage of phthisis it will surely be found to be a valuable remedy. In this complaint there is usually spitting of blood. The mucous membranes are dry, especially those of the mouth and throat. The mouth, throat and tongue are dry, and there is thirst present.

The characteristic mental symptom of justicia is irritability. The patient is easily angered. The patient is not in good humor and is very averse to holding any conversation.

The above lines will suffice for the present.

It is not possible for a single man to collect all possible data in the proving of a drug. I hope some other colleagues of mine will take up the subject and devote their attention to it.

I can assure them that justitia will pass the criterion of usefulness with flying colors and will fall nothing short of their expectations. I earnestly request them to try its efficacy and to publish the failures to the world.

OUR PROPAGANDISTIC WORK. A good New England homœopath writes us as follows:

"One reason that I am so enthusiastic in the line of propagandistic literature is the manner in which I became a homœopath myself. I was raised in the allopathic fold and very nearly went to an allopathic college. One day one of my old teachers spoke to me about homœopathy and told me the benefit he had derived from this treatment. I then cast about me to find out what homœopathy was. I wrote to Halseys, who then had the pharmacy in Detroit. They mailed me back some little pamphlets that gave me the merest smattering of what I wanted to know. Finally my friend supplied me with Johnson's Domestic Homœopathic Guide, and I got a few of the remedies. It was the old, old story of 'fools rushing in where angels fear to tread.' I prescribed for quite a number of old chronics who had failed to improve under allopathic treatment, and I was more surprised than they were at the nice cures I made. Well, it naturally made me a very firm believer in homœopathy, and I have always lamented that there was not more steady endeavor to enlighten the people what homœopathy could do for them. I would not allow myself, however, to become bigoted. So I studied allopathic methods and tried them, but invariably found them wanting except in those cases where they had stumbled on to the homœopathic remedy. While interne in Cook County Hospital, Chicago, I was able to compare results of the homœopathic, eclectic and allopathic treatment. The result was to make me a still stronger homœopath.

"I have seen much of the good that has been done by the old doctors of homœopathy here in New England. The knowledge given to mothers in raising their families and the effects of a few remedies kept on hand for colds, etc., has made thousands of firm adherents to homœopathy through here. Now the allopaths are diligently telling the people that homœopathy is dying out while we stand idly by. We must continue to instruct the new generations continuously what benefit there is in homœopathy for them both as a curative and a preventive treatment. I am well satisfied that allopathic practice, muddled as it is in the maze of pharmacy products and specifics, kill more than it cures when they resort to internal medicine. Even they themselves admit it, but they have not got the moral courage to educate the people to that fact. On the other hand, it is our duty to keep continuously educating the people to the value of our system, not as a matter of improving our own practice, but as a great blessing to humanity."—*Medical Century*.

PSYCHIC PROCESSES AND MUSCULAR EXERCISE. By Prof. Mosso, of Turin. It has long been known, says this authority, that our brain has at birth a grayish hue, and only later takes on a whitish color. This whitish

color originates from the fact that the cerebral nerve fibres, after their complete development, are surrounded by a sheath which has this color. To Paul Flechsig (*Die Leitungsbahnen in Gehirn und Rückenmark des Menschen*) is due the great credit of having shown that our cerebral nerve fibres are not complete at birth, and that the white nerve-paths come from the medulla, extending from the periphery towards the centre.

In man, the brain develops later than in all the other animals, because his muscles also develop later. The striped muscles are more incomplete at birth in man than in any other animal. For this fact, that the human brain develops so slowly, I am able to discover no other reason than this, that at birth the organs which affect movement, over which the brain later exercises its authority, are not yet complete.

The muscles of the adult human being are thirty-seven times as heavy as those of the newborn child, while the brain of the former is only 3.76 times as heavy as that of the latter. It had been long known also that the brain of man slowly increases in weight up to the fortieth year. Recently Kaes (*Über die markhaltigen Nervenfasern in der Gehirnrinde des Menschen*) has shown that, up to the fortieth year, there are formed in the cerebral convolutions new plexuses of nerve fibres, which are lacking in younger brains. Excitation of the senses and impulses to movement hasten the development of the nerves in question. The experiments of Ambronn and Held (*Über experimentelle Reifung des Nervenmarks*) have shown that, if one eye of a newborn kitten is opened to the light, the other remaining closed, the optical fibres of the eye which is stimulated by the light are more quickly surrounded with myelin than those of the other. Another important fact is that the motor nerve fibres are complete earlier than the sensory. These facts we must apply to pedagogy. Only that science can show how injurious is precocious instruction of the development of the child. If we wish to hasten the maturity of the brain, we must decide whether the formation of the myeline can better be hastened by stimulations of the senses and intellectual work, or better by muscular exercises. The latter way seems to me the more natural. We must, therefore, to begin with, consolidate the motor nerve paths which develop first, and after that seek to develop the portion of the brain concerned with intellectual work. Modern views show a tendency to confirm what the great philosophers of Greece already recognized, viz., that children ought to begin to read and write only with the tenth year. The conviction is again slowly maturing that our children begin to learn too early, that it is injurious for the development of the brain to be fettered to the school desk when only five or six years old. The conviction is slowly making its way that no more time should be devoted to intellectual work than to muscular exercise. The modern education of youth, however, resembles more an artificial hothouse culture than a natural training of the human plant.—From a paper read at the Anniversary of Clark University, Worcester, Mass., 1889-1899.

PRISM EXERCISES vs. TENOTOMY.—By Philip Rice, M. D., Berkeley, Cal. No problem has ever confronted the ophthalmologist more difficult of settlement than that of heterophoria. Judging from the literature on the subject, we are as far from a real scientific method of treatment as they were in the days of Noah. I believe that it is our duty to search out the

cause of every case of heterophoria, and deal with it accordingly; and not our privilege to apply our hobby the moment we have made a diagnosis.

To cut an external rectus muscle because it overcomes a tired and weak internal is as insane as to cut the rectus abdominalis to balance it with a weak lumbar. Why not apply the same common-sense gymnastic principles to tired muscles of the eye that we do to weary muscles of the body?

A goodly number of my patients come from the university student body, and each comes with much the same story: Eye-strain, aching, tired feeling; redness of the lids, blurring of vision, etc. Many wear their correction, and many do not. The trouble is invariably exophoria, and the result of too close confinement to their studies. Working at the near point as they do, the internal recti muscles are kept in a state of contraction for hours at a time. This means that a plus amount of energy is being used, and a minimum amount of nourishment allowed to enter, which results in due time naturally in weakness and relaxation. This is purely a functional derangement. The treatment consists of prism exercises—the proper correction when an error in refraction exists, and the homœopathic remedy. One begins usually with a ten or twelve-degree prism, which is placed before one eye, base out to cause diplopia. The two images are fused into one. In this act the internal recti contract, and with more than ordinary energy. As soon as the images are fused the prism is removed and the muscles allowed to relax, and immediately made to contract again by having the prism replaced, and diplopia produced as before. The images are gradually put farther apart by the increased strength of the prisms.

In this exercise there is employed the principle of the dumb-bell exercise, which we all know to be effective in strengthening and building muscle tissue. We know it to be rational and entirely satisfactory, and, since it can be applied to weak and tired eye-muscles as easily as to arm and back muscles, why not use it? Why not do the natural and sensible thing, instead of the unnatural and inexcusable thing? There is absolutely not the slightest excuse for surgical interference in a case of functional heterophoria.—*The Pacific Coast Journal of Homœopathy.*

TREATMENT OF NEURASTHENIA.—Grace G. Savage, M. D., Newton Nervine. Neurasthenics often experience a good deal of pain in the cervical region and the length of the spine. Hot and cold fomentations usually relieve, or a hot or cold douche the full length of the spine may be beneficial.

The horizontal jet douche is the one most used; the application is local, the reaction is called out only where the hot and cold water is applied, this being either side of the vertebra where the nerves leave the spine. The temperature of the cold water is 40 degrees F., the hot 110 degrees F., the temperature being the same for the fomentations as the douche. There are times when patients show symptoms of restlessness, sleeplessness and excitement. Electricity is then given. The vacuum electrode of a high frequency machine is passed slowly down either side of the spine four or five minutes. This is followed by a recumbent position for half an hour, in which time they often fall asleep; when at another time it would be impossible for them to do so. Not all cases are affected this way, but out of fifty or more all but a very small per cent. have responded thus favorably.

A word of caution should be given right here: Electricity cannot be given for an indefinite period; some can take it with benefit much longer than others. If the person is under observation after each treatment, one will recognize when the desired effect has ceased; but when given for too long a time it gradually loses the sedative effect, and soon the opposite condition becomes markedly felt. Therefore, when giving the treatment it should be moderate both in strength and duration.

I have heard of patients being given electricity twenty minutes a day for several weeks, but in our experience it has not worked favorably when given so long. Mechanical vibration has proved to be very helpful with a large majority, as it stimulates the nerves as well as nourishing them by occasioning a better circulation. In a few cases where there has been pain in the occiput and cervical region it has brought almost immediate relief.

Medicines: It is difficult to select a large number of remedies and recommend them as the ones to be used for certain conditions, for different patients have as many different symptoms. The best way to select the remedy is symptomatically. The following remedies are those most often used:—Moschus, Camphor and Hyoscyamus for sleeplessness, but when the patient feels restless and depressed cannabis indica, ignatia, pulsatilla and arsenicum are good.

It will be unnecessary to repeat to any one acquainted with neurasthenia that recovery is not a steady gain, but is interrupted with now and then a day, or even three or four, when many, if not all the old symptoms return and the patient is confident that he has lost all he has gained. The following diagram often helps to teach them what to expect: When explaining it to them we always assure them that these relapses correspond to the notch in the upward curve, and soon they learn to recognize this condition and are not discouraged when their poor days come to them.

ARNICA AND LACHESIS. By Frank Kraft, M. D., Cleveland. In the first place, both arnica and lachesis are blue remedies. That is to say, a pronounced case of either remedy will show a blue color to the skin, sometimes all over, and sometimes only in spots. In lachesis we know that the action of the virus from the viper very soon causes blue spots here and there about the body; and in arnica a "blue" eye (as it is called in German) marks the arnica case most beautifully. The tongue in both remedies takes on the bluish hue at some time in the course of treatment, though from different causes, which I will not go into. The wounds of lachesis are prone to take on the purple edge, the same as in arnica. Both remedies have the break-down of the blood which appears in blue spots on the skin. Sulphuric acid has a similar condition so that, under the memory of my old materia medica teacher, when I see an unaccountable blue spot on the surface, I still think of it as a "sulphuric acid spot;" that is to say, a spot that sulphuric acid will heal.

In the throat, about the tonsils, there will be found this blueness, in lachesis leaning more toward a purple, and in arnica toward the yellow; still the blue underlying color is found in both. In uterine troubles both remedies are noted for their dusky hue to the genitalia and internally. Naturally here, as elsewhere, the blue color under arnica will be attributed to a traumatism; but in the absence of such objective symptoms, it may still be an arnica case, for arnica has blueness of surface without the neces-

sary precedent bruising. There are other blue remedies, but my first thought upon seeing a patient with blueness of tissue is towards arnica or lachesis; and it will require gilt-edged evidence with two good and sufficient sureties to take me away from this pair of twins.—*The Chironian*.

SOME URINARY SYMPTOMS.—*Nux Vomica*.—The urine is of pale color, mixed with tough mucus. Without smell. Circle broad, greenish, with trembling motion. Foam, copious with large bubbles. Scanty clouds, firmly compacted. Sediment thick, dirty grey.

Opium.—The secretion of urine very limited, the small quantity of urine is strikingly dark, but not turbid; after standing for a considerable time, there are a number of small, detached cloudlets. There is no foam at all. The sediment is of brick color and fine sandy. Circle small, trembling and not quite closed. Greenish, shining fatty scum.

Rhus toxicodendron.—The patient has the sensation while discharging the urine as if it were quite hot. The urine immediately after discharge looks quite turbid and flaky, but after standing for a considerable time it becomes clear, of light yellow color, giving a sediment of snow white color. No clouds, but a quantity of foam, colored yellow, and with large bubble. Sharp, penetrating smell. Broad, steady circle.—*Med. and Surg. Reporter*.

TREATMENT OF TUBERCULOSIS.—By Chas. F. Clark, M. D., Woodland, Cal. It is of primary importance that the stomach and alimentary canal are in good condition; all food must be carefully selected, and prepared in the best possible manner with savory viands and served in a manner to tempt the patient. The best results are obtained from the use of animal foods, milk, beef, fats and oils (with the exception of codliver oil); the sugars and starches are only allowable in the mildest of cases. If there be any gastric catarrh or intestinal irritation, the carbohydrates should be interdicted, and foods rich in nitrogenous materials should be taken.

These patients should never take food when the least weariness is present; if at all tired, they should rest from thirty minutes to one hour before taking food. If there is a rise of temperature, eating should be deferred until the temperature recedes. When the temperature is high in the evening and low in the morning, it is good practice to provide the heaviest meal at mid-day. The use of the various proprietary preparations of codliver oil, creosote, guaiacol, cough mixtures, etc., is to be discouraged. The nutritive qualities of the first, the aseptic properties of the other, and the sedative effects of the latter are more or less counterbalanced by the deleterious effects on the organs of digestion and assimilation. There may arise a condition of troublesome flatulence or intestinal fermentation which can readily be overcome by a few doses of creosote or carbofic acid; a much better expedient is to correct the condition by a change in the diet. The maintaining of the organs of digestion in a condition to receive and digest food is of vital importance.

It is a fact which cannot be successfully controverted that with the alimentary canal in a condition to receive food and properly prepare it for assimilation, thereby furnishing the blood with an abundance of rich nutrient material, the system can be placed in a condition to resist the onslaughts of tubercular bacteria and withstand the effects of the toxins which they generate.—*The Pacific Coast Journal of Homœopathy*.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

VISCUM ALBUM.—Dr. René Gaultier, of France, introduced last year a drug whose common name is mistletoe, and which homœopathy has been employing for years in the treatment of epilepsy, chorea and neuralgia, specially sciatica. We have also employed it in rheumatism when the pains alternate in the knee and ankle, the shoulder and elbow. The eminent Dr. Gaultier claims to have discovered this remedy in the hands of a midwife. He is not disturbed by borrowing this medicine from a "commerce," but he certainly would have been found ridiculous to acknowledge its homœopathic source. How many of our remedies are thus entering *incognito* into the old school practice and consequently we can well congratulate ourselves of the fact, if not of *incognito*.

But then, the eminent Dr. Gaultier has found that viscum album has a remarkable action upon the congestive nosebleed of tuberculous patients. In some of them he has observed a lowering of the arterial pressure, and in his experiments on dogs with the intra-venous injection of the fluid extract he has noticed the same lowering of the arterial pressure, but in a manifest and durable manner.

He made a presentation of divers preparations of viscum album, made by Dr. Delassus, such as powder, aqueous extract, physiological solution of aqueous extract, alcoholic extract, alcoholic tincture and ethereal extract.—*L'Art Medical*.

E. FORNIAS, M. D.

HOMŒOPATHIC TREATMENT OF ADENOIDS.—Dr. Lambrechts, of Antwerp, after referring to the opinions of several physicians, for or against operative measures, recommends to institute, at the same time, both a local and an internal homœopathic treatment. For the local treatment he ordinarily employs the glycerol of *hydrastis canadensis* (60 grammes of pure glycerin to 10 grammes of *hydrastis*). His manner of proceeding is as follows: He introduces deeply into one nostril a tampon of absorbent cotton well saturated with the glycerol, inducing the child then to make frequent inspirations, so as to allow the liquid to penetrate the pharynx. After about fifteen minutes he removes this tampon, and immediately introduces another into the other nostril, which he leaves in place for the same length of time. This double operation may be repeated three times a day, at the beginning, and then twice or once daily, according to the improvement obtained.

This procedure, states this authority, has the valuable advantage of maintaining the glycerol in contact with the naso-pharyngeal mucosa and adenoid growths, for the necessary time to allow the remedy to act directly upon the diseased tissues. He considers *hydrastis canadensis* perfectly homœopathic to the totality of symptoms produced by adenoid

growths, for besides the irritant action of this remedy upon the glandular tissue, one of its most predominant effects is a catarrh of the nasal fossæ, with thick, yellow, even bloody discharge.

He extends on the subject as follows: "At the end of a week of such local treatment one should administer internally at the same time, the indicated remedy. It is not rare, under this treatment, to see the obstruction and snoring removed, the nares become pervious to air, and the child able to sleep with mouth closed. It is a fact of common observation, that when the nares become permeable to air, the adenoid vegetation rapidly disappear. This is the reason why English homœopathic physicians are generally opposed to operate while the patient can breath through both nostrils. Another thing is certain, that the nasal catarrh which usually accompanies the adenoid growths, exerts on them considerable influence. The acrid discharges which flow down the posterior nares to the pharynx and constantly bathe these vegetations, must necessarily irritate the lymphoid tissue of which they are formed, and thus favor their proliferation. One can well conceive that by arresting the nasal catarrh and replacing its irritating secretions, by a fluid so deeply modifying, as the glycerol of hydrastis is, we can more readily obtain the atrophy of these growths. So, I have seen, many times, vegetations as large as cherries, disappear almost completely at the end of 5 or 6 weeks, under a combined local and internal treatment."

"*Internal Treatment.* No matter what the cause of adenoid growths may be, whether they are of tuberculous origin, as some pretend, or simply the expression of a pronounced lymphatic state, they do not constitute at least a constitutional defect that cannot be modified by the internal treatment. Surgical intervention, finally, is only a palliative measure, and if after the operation the child is left to himself, the tumors will not be late in reappearing. Medical treatment therefore is indispensable, in all cases, whether operated or not."

Dr. Robeson Day, of London, who seems to partake of the opinion of Dr. Martiny, as to the tuberculous nature of these growths, commends highly calcarea phos, 6, or baryta carb. 6, and tuberculinum, 30. In the March number, 1907, of the *British Homœopathic Review*, he reports an interesting case of adenoid vegetations complicated with hypertrophy of the tonsils, which was completely cured by aid of these three remedies, and this while an operation had been declared indispensable by various specialists."

Besides these remedies others recommended are: Calcarea iod., acid hydrodic., kali jodat., mercur., solub. iodat., pulsatilla., Sulphur, aurum muriatic., psorinum, kali muriat., hepar sulphur, silicea, sanguinaria nitr., teucrium mar., &c. Let me still mention, very specially, thyroidine, which has given excellent results in certain cases of adenoids.

The adjuvants recommended are the seashore, nasal respiratory gymnastics and the application of a special apparatus called chin-trap, which hermetically closes the mouth and forces the child to breath through the nose. According to homœopathic physicians of England, this appliance gives excellent results in the treatment of adenoids when the nares are permeable to air and even after the operation to accustom the child to breathe through the nose.—*Journal Belge d'Homœopathie.*

E. FORNIAS, M. D.

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HOMEOPATHY: A NATURAL LAW OF CURE; OR A SYSTEMATIC EM-
PIRIC PRINCIPLE, BY WHICH DRUGS ARE SELECTED FOR
THE TREATMENT OF DISEASE.

BY

ALFRED WANSTALL, M. D., BALTIMORE, MD.

"THE Condemnation of Socrates. That part of the case against Socrates which charged him with undermining the foundations of faith would have been perfectly accurate if they had not been already undermined," says *The Nineteenth Century*. "People do not like to be reminded of the difference between their theory and their practice nor to be told that they have ceased sincerely to hold the doctrines they have inherited by tradition. If few verdicts are more difficult to justify, few are less difficult to understand than the condemnation of Socrates. Of later ages, when Christians burnt each other because they believed too much or too little, it has been well asked and answered, 'Who lights the fagot? 'Tis not the firm faith, but the lurking doubt!' The jury who found Socrates to be an atheist were probably skeptics to a man. So were the men, if the story be true, who procured the banishment of Euripides." (From a newspaper clipping.)

The following conclusions have been slowly reached by the most elementary reasoning, and they are such as one naturally hesitates to express. They sound so discordant a note among

the views prevailing in this body, if those that are audible here prevail, that one fears one will be stoned, figuratively speaking ; and perhaps it would have been better to have kept one's light under a bushel. But each of us has to make peace with his own soul as he goes, and history will write down sooner or later what is the truth.

It is universally admitted that no satisfactory definition of the shibboleth *similia similibus curantur*—likes are cured by likes—has ever been formulated. The only serious attempt in this direction known to the writer is that of Charles S. Mack, M. D. It has been published time and again in homœopathic literature apparently without exciting attention, nor even editorial comment.

It says in substance : *Similia similibus curantur* is the law of an immediate change not knowable, or knowable only by its effects, from what is abnormal to what is normal, or approximately normal, in vital processes, and transcends the possibilities of rational medicine. Rational medicine can attempt as an immediate end only what is in itself knowable. This probably means in common English that the patient which homœopathy is capable of curing is one presenting symptoms only, and this patient cannot be cured by rational medicine. The only patient rational medicine can cure is one presenting a definite pathology or disease classifiable nosologically. It is unnecessary to comment upon this definition, as it says both too much and too little, probably does not mean what it says, and will satisfy no searcher for the truth.

Why the homœopathic law has not been and cannot be defined is, to the mind of the writer, due to an intellectual confusion regarding the idea on which it is based. At the outset I desire to announce my conviction that homœopathy is not founded on a natural law of cure—we do not know how drugs cure diseases—but is simply a method of procedure according to which drugs are selected for the treatment of disease ; systematic, inasmuch as it is based on the principle of a symptomatic similarity ; and empiric, inasmuch as it is dependent upon the clinical test. The inability to define the homœopathic law is only one of many reasons to be urged against its being a law of nature. If it is a law of nature its distinguishing characteristic should be that it is definable, and it should carry with it as a natural corollary a law of dose. But as a matter of fact the question of dose is no more definite than the law itself, and

its interpretation, like that of the law, is absolutely dependent upon individual experience. The apparently fundamental but theoretic requirement for the single remedy and the minimum dose is noted more in the breach than in the observance. All of which is contrary to what should be expected from a natural law of cure, but is not only natural, but is inevitable under the practical working of a systematic principle.

The subject of homœopathic posology cannot be passed over lightly because it is so intimately associated with the idea upon which homœopathy is based. It has been asserted that Hering said that Hahnemann's greatest discovery was not the law of cure, but the theory of dynamization. This is true only in the sense that the idea of similars was not a discovery of Hahnemann's, nor his invention as Hughes said, but the simple adaptation and development of a principle already known, and the only principle then known to which he could have resorted when he abandoned that of contraries. Perhaps the theory of dynamization is more responsible than any other single thing for the persistence of the belief in a natural law of cure, yet there is no other idea in homœopathy so readily dismissed from the realm of science by simple logic. The dilution of a drug either attenuates or develops its native power. As each successive dilution is the dilution of a preceding dilution, the attenuation or development increases, to use a mathematical term, according to the square of the distance the dilution is carried. As there can be only one kind of drug action for each individual drug, whether it is prescribed homœopathically or by any other system or principle, dilution cannot change its kind of action, but only its degree. Therefore, as dilution either attenuates or develops, i. e., mitigates or intensifies such action according to the square of the distance, any rational theoretic or practical requirement for either kind of modification of the power of the crude drug must be very soon reached and exceeded. And if the result could be a development, when one considers its almost incomprehensively rapid and enormous increase, it should be one of the simplest of all things to demonstrate scientifically.

The theory of dynamization has been homœopathy's greatest misfortune, both because it has repelled investigation and because it has involved the minds of practically all its votaries in an intellectual transcendentalism. An ex-president of the American Institute, at the last international homœopathic con-

gress, made a deliberate statement that homœopathy is more than a system of therapeutics; that it is a system of medicine; and he had only just volunteered that he used palliatives, completely unconscious of the extraordinary extravagance of his statement and its inconsistency. Last October, while hearing the lectures of Sir Almroth E. Wright, under the Herter foundation at the Johns Hopkins University, on "Opsonins and Bacterial Vaccines," I was impressed with the fact that his discoveries had been foreshadowed, in a sense, in homœopathy, especially by the late Dr. Swan. They referred to treating bacterial infections by vaccines prepared from killed bacteria derived from the infected patient. The necessity for the smallest dose that will produce the least negative phase and the highest positive one of the opsonic power of the blood. The non-repetition of the inoculation as long as the positive phase remains high or normal. Danger of serious aggravation from too frequent or large doses. The production of artificial immunity, etc. All of which has come to be regarded by homœopathic physicians as confirmatory of the homœopathic law of cure, just as the atomic theory has been, Behring's diphtheria antitoxin, the ionic theory, radio-activity, etc.; each of which, as time recedes in the distance, will resume its place in science, leaving homœopathy just where it found it. It is a misfortune for homœopathy itself that its votaries bring so many of nature's phenomena, suitable and unsuitable, to its tribunal for explanation, and regarding the phenomena within its own experience rejects every impulse to seek elsewhere in nature or science for any other explanation save the homœopathic law, leaving them to others to exploit scientifically.

The clinical symptom is an inconsistency in homœopathy, which has assumed extraordinary prominence in the symptomatology of drugs, and which has the distinction of having begun with Hahnemann himself. Indeed, it is not uncommon to find it outranking in importance the pure symptom. Its relegation to its proper place in connection with a strict interpretation of homœopathy as a natural law of cure has been attempted, especially by the late T. F. Allen, M. D. Its incorporation in the text with the pure symptoms of drugs by those who believe in a natural law of cure is not only grossly inconsistent, but it should have no existence for them. But if homœopathy is not based on natural law, but only on a systematic principle, its incorporation in the materia medica is not so inconsistent, though

perhaps it still needs a defense. Of the same kind, but greater in degree, is the clinical use of certain drugs concerning which no proving on the healthy exists and about which a clinical symptomatology is gradually built up, a practice absolutely indefensible if not impossible with the actual existence of a natural law of cure; yet a perfectly natural procedure in the absence of such a law.

It is admitted by all believers in a natural law of cure that homœopathic physicians should not alternate drugs nor use compound tablets, as they are absolutely indefensible and incompatible with a belief in this law. I would go a step further and say, with a strict conception of a law of cure, they are intellectually impossible, and with the actual existence of such a law they would be impossible in practice. But as it is, they are only evidence of practice and experience overwhelming theory and dogma. While I am addicted to neither, though not absolutely innocent, it cannot be successfully maintained that their clinical utility is not as great as the single remedy, that they are not the obvious outcome of experience in the application of a systematic principle, and that they are the prostitution of a so-called law of cure. That their use is being carried to an extreme and that they indicate and inculcate slovenly habits of mind is undeniable. But the objection to their use is based on an instinctive though unconscious recognition of their silent testimony against the existence of a natural law of cure rather than on any practical grounds. Inveigh against them as we will, they will remain until nature's law of forces following the lines of least resistance is obliterated for the human mind, and experience ceases to be a guide for the actions of men.

Whether palliative treatment is consistent or admissible with a belief in a law of cure I will not venture to say; however, it is quite commonly resorted to by those who profess to believe in a law. That it is not inconsistent, and is perhaps inevitable, with a principle not based on natural law, seems to be obvious. It is not necessary to dwell on the bearing upon this subject of adjuvants and supplementary treatment as is comprehended under hygiene, surgery, all forms of local treatment, electricity, therapeutics, massage, vibratory and manual, etc., etc. Certainly their very extensive use by homœopathic physicians does not tend to point to the existence of a natural law of cure. Fahnemann's theory of psora and pycosis and his so-called

antipsoric drugs, as well as the idea or doctrine of diathesis and dyscrasia as a basis for prescribing, and concerning which the phrase "diathetic homœopathy" has been coined, and which assumes that certain drugs are adapted to this or that diathesis or dyscrasia, as well as the use of the nosodes, and Schusslerism in homœopathy, are purely empiric inductions and could not have been deduced from a natural law of cure and the pure symptomatology of drugs.

The favorite comparison of the believers in a law is that it is a law of nature in the same sense as is that of gravitation. Yet they fail to realize that a piece of lead, a few feathers and a toy balloon are all that are needed to demonstrate the salient features of the latter to the simplest mind; while how to demonstrate the salient features of the former with its apparent and real exceptions and contradictions, to an astute and mature mind would more than tax all one's ingenuity.

Between homœopathy as it is ordinarily exemplified at the bedside and in the clinic, and homœopathy as it is heralded to the world through its dogma of a law of cure, there is an irreconcilable intellectual conflict, mainly because the exigencies of practice are constantly bringing up for treatment purely medical cases and conditions that cannot be met rationally by the recourses of homœopathic prescribing, and for which the law itself furnishes no rational exception. That there is a law of cure, i. e., a natural law epitomized by the shibboleth *similia similibus curantur*, the majority of even the most liberal and least consistent homœopathic practitioners believe; they also believe the reason this law has not been more or less universally recognized is due to two causes: first, that the minds of the majority of medical men are wilfully and prejudicially closed to its truth; and, second, that the means, i. e., the *materia medica*, for demonstrating its truth as the science of drug therapeutics is defective. They believe if this defect can be remedied at least one formidable obstacle to the general recognition of the truth of the dogma of a homœopathic law of cure will be removed. Hence, the dominating intellectual incentive of the school to-day is the ambition to create a scientific *materia medica*, and the hope of converting the medical world to an acknowledgment of the homœopathic law of cure. The facts that the *materia medica* meets the requirements of a therapeutic art and is only defective when called upon to demonstrate it scientifically as a natural law of cure; and that the physician

uneducated in homœopathy does not object to its practical application—indeed, he not infrequently uses it—as much as he does to its interpretation, and for the comprehension of which he is unfitted intellectually both by his previous training and the present trend of medical science, should have long since made apparent the futility of this hope and ambition.

It behooves the homœopathic school to look sharply after its fundamentals at this time, as it is daily becoming more difficult, if it is not already impossible, to firmly establish its dogma in fresh minds that are being simultaneously imbued with the principles of rational medicine, because the homœopathic dogma and the present intellectual motive in rational medicine represent intellectual incompatibilities. The failure of homœopathy to maintain its native purity is not due to a decline of the enthusiasm of its teachers as is being so urgently insisted but because the intellectual progress of the day has outgrown the limitations of a dogma which cannot be reconciled with its own present practice, nor with the normal growth of rational medicine.

The intellectual progress or stagnation of an individual or a body is wholly dependent upon his or its intellectual incentive or motive, and the truth or falsity of the ideas upon which his or its intellectual life is based. Let us stop and ask what is the intellectual motive of the homœopathic body to-day? Is it to maintain, at any cost, the truth of a shibboleth which has become the foundation of its intellectual life? Or is it to endeavor, seriously and earnestly, with all its ability to harmonize it with its own practice and with the present intellectual status of rational medicine in its broadest sense, regardless of where it may lead it, in spite of its early training, confirmed habit of mind and inherited intellectual precedent? Or to state it otherwise, as truth will vouch for itself, and it is only error that needs to be buttressed on every side, why should a profession seek to force all its drug therapeutic experience and that of other medical bodies into the narrow groove of a dogma to which they must all ultimately lead if it is true. Do we realize we are asking the world to believe something we do not believe ourselves, or, if we do believe, we cannot practice. We are judged not by what we believe, which cannot be seen, but by what we practice, which can be seen. Is the homœopathic school to continue to be dominated by the intellectual standards of a hundred years ago, more or less, even if those standards

were most advanced and excellent for that time? If it is, it is one of the most extraordinary intellectual phenomenon to be seen to-day in any body of men and women educated in the sciences, and is only paralleled in the pure theologies, but even they are striving to break away from the dogmatic traditions of their youth. Is homœopathy a progressive intellectual science? Or is it a dogma in medicine beginning where it should have ended and ended where it began?

Does the homœopathic profession believe that the shibboleth *similia similibus curantur* expresses a fundamental truth in nature in epitomizing a law of cure everlasting and universal within the limits of its applicability? Or does it believe that homœopathy is simply the practical application of a fortuitous circumstance in nature which has permitted the creation of an art in drug therapeutics belonging more to the domain of empiricism than to that of science? Between these two views is all the difference that can exist between intellectual bondage and intellectual freedom, between progress and stagnation for the art itself. If one believes in a law consistently and sincerely his intellectual interests are naturally confined within its narrow limits, and by divine right he has no part or interest in rational medicine, as is boldly proclaimed by the strict Hahnemannian. But to practice medicine, with all the freedom of mind comprehended by the phrase rational medicine, and to retain the belief that homœopathy is founded on a natural law of cure is to indicate either a mistake as to one's belief, or that one lacks consistency if not sincerity.

There is an adage that a chain is no stronger than its weakest link. If one should ask, What is the weakest link in homœopathy to-day? the prompt and emphatic answer would be: The materia medica. But not on account of its inefficiency at the bedside, but simply because it lacks the preciseness and accuracy necessary to fulfil the requirements of homœopathy regarded strictly as a natural law of cure. There is every reason to believe that for Hahnemann and his immediate followers the materia medica was by no means considered so defective, except, perhaps, for its brevity, as we hear no complaint from his close imitators to-day. Although the materia medica has been very much augmented since Hahnemann's time, confidence in its reliability has not increased in proportion to this augmentation, but the reverse. Why has this change taken place, when, as a matter of fact, the materia medica is no

worse at present, but, perhaps, rather better than formerly? It is because with a progressive increase of scientific knowledge of disease its composition as a scientific work has come to be seen to be more and more faulty. In the days of Hahnemann and his immediate followers (as is true in a sense of the so-called Hahnemannian to-day) a knowledge of pathology and etiology was still in its infancy, and other ologies, which now burn with the brilliancy of the electric searchlight and in whose fierce glare we live and work at present, were then unborn.

It is not that the *materia medica* we have inherited from our predecessors is inadequate for the work for which it was created. It is as efficacious as ever, and is as pure as the theoretic requirements under which it was made permit it to be. It was never possible for it to be a scientific work, for the principle whose requirements it is intended to fulfil has never been properly an object of scientific investigation (it was not an hypothesis to be proved or disproved, but a dogma). Therefore the trouble does not lie in the condition of the *materia medica*, but in the changed point of view, and the total failure of the profession to recognize the true significance of this momentous fact. The intellectual standpoint has shifted from the times of Hahnemann to these following Pasteur. (I use the name of Pasteur because his discoveries mark the inauguration of a new and perhaps the most important epoch in the history of medicine.)

The standards of scientific accuracy in Hahnemann's day were not so accurate as in these following Pasteur. It may be truthfully argued that present standards are by no means fixed, but this should only warn us of the futility of clinging to those of the past. We are trying to think and practice a rational medicine to-day with the ideas and means of yesterday. We are in the anomalous position of vibrating between two widely separated intellectual periods without knowing to which we owe our sole allegiance. We are looking to a regenerated *materia medica* to cure our distemper, instead of looking to a regenerated dogma. The *materia* suited Hahnemann and it suits his present disciples, and they, too, are strong believers in a law of cure. The so-called modern homœopathist sees clearly the mote in the eye of the latter, but is unconscious of the beam in his own. Realizing that the *materia medica* is inadequate to his present intellectual wants, instead of asking himself whether they may not be based on erroneous premises,

he will remake it (pseudo) scientifically, without realizing that if he could succeed the result would no more meet the practical requirements of Hahnemann's homœopathy than Hahnemann's materia medica meets the theoretic requirements of his. Hahnemann's homœopathy and the ideal—still non-existent—of the modern homœopathist are wholly different things.

It is not purely a scientific materia medica that is wanted, but a materia medica that will fulfil the requirements of an art, or a principle, erroneously called a science, for applying drugs in the healing of the sick promulgated one hundred years ago, as well as the medical science of to-day. If Hahnemann's materia medica fulfilled his idea of the practical requirements of a natural law of cure, as it does that of his close followers to-day, and it does not fulfil those of what the cultured physician of the present regards as the science of homœopathy, then somebody has made or is making a mistake. As no real progress has been made toward a scientific homœopathic materia medica, which is itself a misnomer, and as a scientific homœopathy either of the past or future is a figment of the imagination, there is only one solution of the dilemma, and that is that the homœopathy of Hahnemann is not a science based on natural law, but an art, a method of procedure, based on a fortuitous circumstance in nature; an art of prescribing available whenever the physician lacks the requisite knowledge to proceed more rationally; and even under those circumstances, when scientific knowledge exists that would permit him to proceed rationally there is nothing in unwritten law or ethics to prevent him from preferring the homœopathic art as long as he conscientiously believes it to be better or as good. It is to be borne in mind that while science has made great strides in medicine, it has made no great strides in the treatment of disease with drugs. And homœopathy is not a science of medicine, but an art in drug therapeutics.

Homœopathy is not dead, but is threatened with a protracted adolescence under a mass of confusion and error. In a very material sense it antedated science in drug therapeutics; it has enormously augmented drug therapeutic experience; it supplements science in drug therapeutics to-day, and will, in all probability, continue to supplement it in the future if the intellectual shortcomings of its own adherents do not prevent it from ac-

quiring that easy play so essential to its rational adjustment to the ordinary progress of medical science in general.

We should realize that we possess no charter from God for an inspired LAW of cure; that Hahnemann was human and mortal; that we treat disease with drugs not because it was the Divine intention that they should be so treated and that nature would reveal no other means, nor on account of their extraordinary utility, but because and when we have nothing better to take their place; and the great wonder should be not that drugs do not do more, but that they do so much. In all probability there never will be a time in the history of medicine when the treatment of disease by drugs will not be giving way before, or rendered superfluous by, more rational means. Drugs are not less useful to-day than in the past, in a sense they are more so, not because more use is made of them, but because they are used with more skill. On the other hand, they are used in a sense less, not because they are less useful in themselves, but because medical men have become more skilful in other and more rational measures. The progress of surgery and an increased knowledge of hygiene, etiology, pathology and bacteriology, as well as the psychic treatment of disease, has rendered the profession of medicine less dependent upon the use of drugs.

To abandon a belief in a natural law of cure is not to abandon vested interests either financial or intellectual; it is not to abandon the treatment of disease according to the principle of similars; but to obtain intellectual freedom, without which the idea homœopathy represents must become less and less distinct and utterly fail to obtain any substantial foothold in the universal brotherhood of physicians.

It may not have been the extraordinary intellectual phenomenon on the part of Hahnemann that it seems to me to have been, from my present standpoint, when he construed the homœopathic principle to be a law of nature, but it is an extraordinary intellectual phenomenon when it is considered how persistently the homœopathic profession clings to this belief, and permits it to dominate its conception of medicine as a whole, as is the case when it cherishes the ambition of forcing its recognition upon the general body of medical men, although it is at variance with and antagonizes their whole intellectual life and concerning the true scientific interpretation of which it is itself divided in twain.

Even if there was no more potent and convincing argument to bring forward it does seem as if the simple fact that an unscientific *materia medica* fulfilled the requirements of a so-called law of cure and still fulfills them for the unscientific, and as it is only as it becomes more complete and its interpreters become more skilled in scientific thought that it seems to become inadequate, should, at least, have led to the suspicion that the principle upon which it is based is not a law of nature the requirements for the fulfilment of which are only to be met by exact scientific means.

The more strictly disease is treated homœopathically, i. e., symptomatically, the less need for any scientific knowledge of it, and we are even taught that those symptoms which are pathognomonic shall be ignored in the selection of the drug. The phenomenal growth of modern medicine in etiology and pathology has created an intense intellectual impulse on the part of homœopaths to adapt homœopathy to the rational requirements of this modern knowledge. Believing homœopathy is based on a natural law of cure they see no reason why it is not as applicable to the treatment of disease according to its nature and kind as to its symptoms, though this violates Hahnemann's most important postulate and implies that either his practical application of the principle or his dogmatic interpretation of it is wrong. But if homœopathy is no more than a systematic empiric principle it is obvious that while it is singularly adapted to supplement and anticipate science in the treatment of disease it does not necessarily follow that it can be adapted to all, or shall not be displaced by the rational requirements of the modern or scientific knowledge of disease.

The symptomatology of disease has never been written. It is worth contemplating what a chaotic mass of inanities and contradictions it would be, how unscientific and futile, if it were carried beyond what is pathognomonic, as is the case with the proving of drugs for the purpose of homœopathy. In the treatment of disease homœopathically, i. e., symptomatically, there can be no true pathologic basis for prescribing, because the symptomatology of drugs or disease beyond what is pathognomonic cannot, at least yet, be made scientific. Furthermore, while drugs have what is termed a physiologic action, on which their rational or scientific prescribing is based, they have no strict pathology in the sense that disease has, no etiology, predisposing causes and what-not that goes to make up the complicated picture of diseases, all of which factors have their role

to play, and are so strangely ignored in the assumption of a homœopathic law of cure, and the possibility of creating a scientific *materia medica* on homœopathic lines.

No rational medical man will deny the existence of an art, or its utility, for prescribing drugs for disease based on the similarity of the symptoms of each, though he may decline to use it, being uneducated in its intricacies, yet whose rationalism would compel him to shrink from acknowledging it as a natural law of cure governed as it must be if it is a natural law by the rigid requirements of an exact science.

The principle of similarity is as wide as human experience and belongs to the domain of art rather than to that of science. Nothing else in homœopathy has perplexed me more, and I have practiced it thirty-two years, than to account for the train of thought that construed it to be a natural law of cure. The fact alone that it is not a positive or basic relationship capable of scientific demonstration, but an accidental one more an appearance than reality, should have led to a very different conclusion. The similarity existing between the manifestations of drugs and disease is not a positive relation; it is only relatively positive, i. e., similar as to some individual feature or features, symptom or symptoms; but fundamentally it is relatively or absolutely negative, i. e., dissimilar or unlike. A cerebral apoplexy, congestion, anemia (ischemia), edema; uremic poisoning, opium narcosis, and alcohol intoxication may produce very similar symptoms, a relationship that is only relatively positive, i. e., symptomatically similar, but fundamentally or pathologically the relations existing between these conditions can only be designated as relatively or absolutely negative, i. e., dissimilar or unlike. And so it is in regard to the relation of the symptoms of drugs to disease; it is not positive, absolute or fundamental, i. e., pathologic or etiologic, but superficial and relative, i. e., symptomatic; and it is on the element of similarity in the symptomatic relationship of drugs to disease that the homœopathy of Hahnemann is based, and not on a pathologic or etiologic similarity about which Hahnemann knew no more than we do ourselves at present. It is these facts that render the hope of creating a scientific *materia medica* for the purpose of homœopathic prescribing futile. A *materia medica* cannot be both symptomatic and pathologic; physiologic is the word used to express the action of drugs in contradistinction to symptomatic. Therefore any material success in the direc-

tion of the recent ideal of the homœopathic profession would result in the evolution of a homœopathy wholly different from that of Hahnemann.

There is another principle by which disease is treated to be mentioned in this connection, especially as it has recently acquired renewed importance, and because it is erroneously regarded as being an example of the application of the homœopathic law by homœopaths and even by individuals of the other school. It is that principle underlying the use of the nosodes in homœopathic practice, and in the other school, in a broader way and greater variety, in the treatment of diphtheria with antitoxin, myxedema with thyroid extract, tuberculosis with tuberculin, and other bacterial infections with anti-serums and vaccines as used by Wright and others. The words natural or physiologic, and it may come to be rendered "scientific," best describes the relation existing between these organic products—they cannot be called drugs—and the diseases they prevent, ameliorate or cure, as their selection is absolutely dependent upon the generic or natural relation existing between the remedy and the disease. Their action is explained, not by an hypothesis of the production of a similar drug disease, but by rationalism on the foundation of their generic adaptability to the various physiologic requirements of the natural chemism of the human body in disease, by means of which in health it maintains its own equilibrium, protects itself from and overcomes infections, and acquires and maintains immunity.

That this principle is wholly different from the homœopathic principle as enunciated by Hahnemann need not be argued at length. If the principle here designated as natural is homœopathic, then it is of a homœopathy based on natural law, a scientific homœopathy, in contradistinction to the homœopathy of Hahnemann, which is really based on empiricism, as the only guide for the selection of the drug is the similarity of its symptoms to those of the disease still leaving its utility to be determined by the clinical test. The analogy in dosage is more apparent than real. While neither experience nor theory have settled the subject of homœopathic dosage, both experience and theory have contributed to the fixing of the dosage in the application of the natural principle, and which ranges from fractional parts of a milligram of tuberculin in tuberculosis at intervals of days and weeks to several thousand

units of antitoxin in diphtheria one or more times a day. In the early part of this paper I said concerning the use of compound tablets and the alternation of drugs: "With a strict conception of a law of cure they are intellectually impossible, and with the actual existence of such a law they would be impossible in practice." Contrast what actually takes place in homœopathy in this respect with what are the absolute limitations under the practical application of the natural principle.

In homœopathy a symptomatic similarity of the so-called totality of the symptoms with the use of the same drug when similar absolutely regardless of the pathologic or etiologic foundation of the symptoms are indispensable essentials, while with the natural principle the etiology or pathology is the sole indication for the remedy, which, up to the present, has almost absolutely no other application save the pathologic or etiologic entity to which it is generically related. How, then, can this be homœopathy?

For the sake of unity and the illustration to follow, the principle of contrariety is mentioned here. Like similarity it is a relatively positive relation only, i. e., it is symptomatic, and bears the same relation to disease fundamentally or pathologically that similarity does, i. e., it is relatively or absolutely negative. These two principles, the allopathic and the homœopathic, are not fundamentally antagonistic, but only symptomatically so. And when due consideration is given to the dual action of drugs, or to their primary and secondary action, or the systemic action and reaction, which are opposite, it becomes more or less obvious that the symptomatic antithesis existing between them is more apparent than real, and that they are, no doubt, often complementary or even, in a sense, convertible. The antagonism existing between the old (now obsolete) allopathic and homœopathic schools was based both on dogma and practice, and dogma has ever been a fruitful cause for battle. The partial reconciliation of the schools has been brought about by the partial abandonment of dogma and a profound modification of practice. Whatever present antagonism there is between the schools is rather an intellectual one than a question of either dogma or practice. While the dominant school has wholly abandoned dogma, profoundly modified its practice, and relies on rationalism to explain and guide its practice, the homœopathic school has sectionally rather than wholly rationalized its practice and still clings as a body to

its dogma, which alone stands in the way of their common intellectual understanding.

It is possible that a better comprehension of the untenability of the belief in the existence of a *law* of cure may be had by an illustration from the domain of hypothesis. It is not stretching the imagination too far to assume that if the instinctive and primitive dogma *contraria contrariis curantur* had been formulated as nature's law of cure as by divine intention, and had been developed as a medical theology, and applied from the practical side on the basis of a pure symptomatology of drugs, that the Hahnemannian materia medica, as it exists to-day, would have served its purpose as well as it serves the dogma of similars; and furthermore the same patient might have been prescribed for from the symptomatology of the same drug according to the practical requirements of either *contraria contrariis curantur* or *similia similibus curantur*. Whether drugs are prescribed according to the principle of similars or contraries the basis of the prescription must be symptomatic; it cannot be basic or pathologic; and it is no more rational in the one case than it would have been in the other to assume the existence of a natural law of cure which would naturally demand scientific accuracy in its practical application.

The final consideration should be the clinical test. Concerning it the testimony of the individual is worthless, as the personal equation cannot be eliminated. For this reason there is nothing more difficult to prove or contradict than that a curative result is the effect of a drug administered. The failure of the homœopathic materia medica to meet all the therapeutic demands of an internal medicine is easily explained. 1. By the physician who regards homœopathy from a purely rational standpoint, as owing to the natural inadequacy of a means to an end. 2. By the Hahnemannian, to its incomplete understanding, i. e., to his own limitations as a student of the symptomatology of drugs. And, 3. By the physician whose ideal is a scientific materia medica, to its incomplete development in this direction. There are no statistics worth consideration. The discrepancy in numbers makes any comparison of the results of the two schools practically worthless. Statistics can be of no real value for comparative purposes until they are reasonably equal in numbers, and so large as to overcome all accidental influences. For instance, in some recently published ones (in the *Chironian*, I think) the results from the largest hospital in

a large city were compared with those from the smallest. And in them as a whole no apparent consideration was given to the facts that a large proportion of the cases from both sources were undoubtedly surgical, and that, in all probability, many of the medical cases from homœopathic sources had not been treated homœopathically. If statistics from homœopathic sources are more favorable than those from the major school it does not prove the truth of a so-called law, but only shows the probability of the superiority of the systematic following of a principle and the minimum amount of drugs over other and mixed methods.

Finally, it cannot be overlooked that homœopathy has not stereotyped, so to speak, the treatment of any pathologic or nosologic entity.

"HOMŒOPATHY: A NATURAL LAW OF CURE; OR A SYSTEMATIC EMPIRIC PRINCIPLE."—A REPLY TO DR. ALFRED WANSTALL.*

BY

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The phrase *similia similibus curentur* is a brief expression of Hahnemann's idea of therapeutic procedure and, if true, is an apt statement of one of nature's laws. Just what Dr. Wanstall means by saying, "The homœopathic law has not been and cannot be defined," I can hardly understand. Certainly, it is absurd to consider "the inability to define the homœopathic law" as "one of many reasons to be urged against it being a law of nature." Doubtless, there are multitudes of nature's laws, not only not defined as yet, but whose very existence is undreamed of in the philosophy of the wisest of men.

Similia similibus curentur, however, is the formula of a hypothesis which seeks to explain nature's manner of applying a remedy for the cure of disease. Most of us will be satisfied to accept Dr. Wanstall's definition of Homœopathy, "Simply a method of procedure according to which drugs are selected

*A proof of Dr. Wanstall's article was submitted to Dr. Copeland, with a request from the HAHNEMANNIAN that he reply thereto. We gladly give our readers his criticism of the paper.—EDITORS.

for the treatment of disease." At the same time we resent the imputation of "intellectual confusion regarding the idea on which it is based."

The truth regarding the theory of similars lies within the following statements:

1. It is absurd and untrue.
2. It is the expression of but one of nature's methods of cure.
3. It is a hypothesis seeking to explain a universal and exclusive method of therapeutic procedure.
4. It is the law of cure.

Dr. Wanstall, from his own testimony, will eliminate proposition one. He admits that Homœopathy is at least "an art in drug therapeutics." Turning, then, to the remaining propositions, we must consider exactly what is a working hypothesis, and what must be scientifically proven in order to establish its right to be called a law. Then we will be prepared to discuss whether Homœopathy is the only method of accurate therapeutic procedure.

What is meant by the word hypothesis? It has been defined as "A tentative conjecture assigning provisionally a cause for known facts, to be used as a basis for their arrangement and investigation which, by the discovery of new facts, may uphold or disprove the conjecture, and aid in reaching the true theory." Ueberweg has said, "Scientific hypotheses are not assertions which have been floating in the air, and are laid hold of," as stated by Apelt, who appears to be master-teacher of Dr. Wanstall; "they are the results of regular reflection on experiences, and, as premises in tentative deductions, form the necessary preliminaries to adequate knowledge." To avoid the possibility of any misunderstanding of the word, the authority already quoted goes further: "A hypothesis is a statement of what is deemed possibly true, assumed and reasoned upon as if certainly true, with a view of reaching truth not yet surely known; especially, in the sciences, a hypothesis is a comprehensive tentative explanation of certain phenomena which is meant to include all other facts of the same class, and which is assumed as true till there has been opportunity to bring all the related facts into comparison; if the hypothesis explains all the facts, it is regarded as verified; till then, it is regarded as a working hypothesis, i. e. one that may answer for present practical purposes."

Personally, I have almost invariably avoided speaking of the phrase "*Similia similibus curentur*," as the expression of a *law*, preferring to regard the doctrine as still in the hypothetical stage. However, using the accepted definition of the word *law* as it relates to the physical world, one should be quite justified, technically, in assuming that the working hypothesis of Hahnemann has been verified, and that our doctrine is, in the true sense, a law of nature. "The uniform occurrence of natural phenomena in the same way or order under the same conditions, so far as human knowledge goes," is a rule of the universe, a law of nature. In the physical world, in the last analysis, there is no difference between a working hypothesis and a law. In science, "a natural law is simply a recognized system of sequences or relations." It is extremely doubtful if any so-called natural law will ever be placed on the same high plane of established truths as are the facts of mathematics, for instance. Personally, I am willing to admit that the theory of similars is not so well founded and certainly is not so demonstrable as is the law of gravitation. But, in the true scientific sense, it is a hypothesis which perfectly explains every phenomenon familiar to the medical mind, and while it may never be beyond the possibility of cavilling doubt, yet it offers a reasonable, sensible, convincing and satisfactory explanation of all therapeutic procedure.

One cannot explain why the law of magneto-electric induction operates. One cannot explain why Kepler's laws govern the motions of the planets. One may merely speculate as to how medicines act. Life itself is beyond test tube and scalpel. To wander into these fields of thought is simply to lose one's self in an unsolved and unsolvable maze. But, applying the same methods of experimental research as are elsewhere considered convincing, it is gratifying to find that every question put to nature regarding the truth of *similia similibus curentur* has been answered in the affirmative. Very properly, in spite of Dr. Wanstall's criticism, "its votaries bring many of nature's phenomena * * * to its tribunal for explanation," and, so far, the judgment passed has, in every case, been favorable to our contention.

In the practical application of this law, one must have something more than a piece of lead, a few feathers and a toy balloon. That the law of gravitation operates is shown by the immediate descent of the dropped lead. Unfortunately the

exhibition of the remedy is not followed by an immediate disappearance of the disease. The proof of the theory of similars is a more complex problem. To apply it with mathematical certainty, one must needs have infinite power to elicit the symptoms and infinite knowledge of drug action. This involves two impossible conditions. In the first place, it means the proving and knowledge of the provings of every possible drug substance. Secondly, it means that the physician is wise enough and clever enough to draw from the patient a complete picture, including his every symptom. Could these conditions be met, one could apply his absolute knowledge and with mathematical certainty cure every patient. Such wisdom is possible only with God; finite mind can never hope to attain to this position. Therefore, the application of the theory of similars can never become an exact science; therapeutics must ever fall short of absolute perfection.

To my mind, there is no discouragement in this. On the other hand it offers an inspiration to study. The physician who knows most of *materia medica*, the one who knows most of human nature, the most of disease processes, the most of physical diagnosis—to such an one will come the greatest number of cures.

In the nature of things, however, the time must come in the practice of every Homœopathist when he cannot find the *similimum*. Admitting that every surgical operation, every local application, every palliative measure—admitting that all these are evidences of therapeutic impotence, yet their employment is no reflection on the theory of similars. Their use does not, by any means, disprove the existence of a law of cure. They indicate simply the limitations of human knowledge. The homœopathic physician does not live who will refuse to testify to the superiority of the internal remedy when it can be properly chosen. However, the honest practitioner experiences occasions when his limited attainments fail to furnish the indicated remedy. Then, in justice to his patient he employs such local, surgical, or palliative treatment as experience and observation have shown to be useful. To do less than this would be to fall short of Hahnemann's definition of the physician's mission, "to restore the sick to health."

Dr. William Boericke, than whom there is no clearer thinker in the homœopathic profession, was probably the first to call attention to the difference between the ideal doctrine and the

to express that doctrine. To completely answer and, if possible, to correct Dr. Wanstall's own work I can do no better, in closing, than to quote Hahnemann, as follows:

To place ourselves right in our relation to other facts, and understand and not be discouraged by the homœopathic practice, we must learn clearly the difference between the underlying great principles of nature and the art of applying these principles, as two distinct facts.

And its principles, of which *similia similibus curantur*, are absolutely true, as true to-day as at the beginning of time. The law of cure is as in the law of gravitation or cohesion. It always existed, and it is an expression of certain relations of living nature, which was not recognized and formulated until a favorable time and stage of mental evolution produced a physician for that purpose, and with him began the application of this law of healing into practical operation, to conform to human needs; to materialize it, if you will, into a practical art—the art of Homœopathy. Now, necessarily, and in the very nature of things a thing is not perfect, and hence of imperfection, dependent upon men but partially trained, at best, to such an extent. Remember the two absolutely essential conditions for the law: (1) a knowledge of the effects of remedies; (2) ability to apply such knowledge to the case. Where you see at once how wide the door is opened for error, for judgment, partial views, wholly erroneous inferences, of what really constitutes in a given case the simi-

is it reasonable to expect from this art of hardly growth, infallibility or universal application? Does this attitude hurt us most in the end? And yet, what is this art of Homœopathy has, whatever advantage over that of all other methods of treatment, is from the fact that we are endeavoring to outgrow the one law of cure. We are strong, because our structure is built upon solid rock of truth and experience upon the inductive method of research, in short the natural law.

Still at times, as fail we must. What, then, is the

law limited, open to exceptions within its own domain—are we fostering a delusion after all? Certainly not. We fail because of the imperfection of our art, because of her youth, her imperfect tools, our own imperfect conception of its principles; these are the only obstacles to successful application of the perfect principles which they seek to carry out.

“Looking at Homœopathy in this duality of form; recognizing the distinction between the inner, perennial truth and the outer form, between the science and the art of Homœopathy, we are enabled to escape the two dangers that have always threatened the progress of our school.

“The first danger that judges the capabilities of Homœopathy by its present development, by the Homœopathy that you and I practice, is seen in a growing laxity in the study and practice of the principles of Homœopathy, and just in proportion to this a too ready adoption of merely palliative treatment and easy acquiescence with all sorts of passing therapeutic fads and old school methods, all of which lead to the deterioration of pure Homœopathy. The corrective for this widespread and deplorable condition is increased study of the principles of Homœopathy, rather than the dwelling on the imperfections of the art, to look and aim high, and drink deep from the fountain, to study the philosophy and the exposition by its great teachers—purists of the type of Dunham, whose sweet reasonableness and judicial-mindedness forever make him the ideal teacher. A course of such training will result in firmer faith and more loyal devotion to the precepts of Hahnemann, with consequent better results at the bedside.

“The second danger that has ever threatened Homœopathy is more subtle. It is not common, but very active whenever present. It is homœopathic self-sufficiency personified. It shows itself as a narrow-minded bigotry and a supercilious contempt for everything different from the dogmas of Hahnemann. This results from the worship of the letter, independent of its interpreting and enlivening spirit. It is blindly enthusiastic, dogmatic, and loud in its denunciation of all departures from the strict, straight and narrow path. But I am afraid that those misguided, enthusiastic spirits of our own household, innocently enough, perhaps, are the worst enemies to the true development of Homœopathy. They do not distinguish between the ideal, errorless principals—the doctrine—and the unfinished, imperfect, but every growing art.

rective of this pitfall lies in the recognition of this in seeing clearly the limitations of the Homœopathy and we will be freed from this thralldom by keep-
 hands bathed with a stream of fresh knowledge from sources of collateral and medical science. Such will bring with it a wholesome, albeit humiliating, our relation to the whole, and make us satisfied to and develop the science of Homœopathy as a spec-
 great field of therapeutics."

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A REPLY TO DR. ALFRED WANSTALL.*

BY

WARD FORNIAS, M. D., PHILADELPHIA, PA.

is no department of study to which a common-sense is so necessary as that of philosophy. The vagar-
 schoolmen although well-nigh forgotten in their in-
 surdities, have left as a legacy to education in suc-
 ces, a sort of mantle made up of the gown of the
 and the cloak of the jester, which the average man
 philosopher with wearing. To-day, in this prac-
 are satisfied with the fact that 'I am I,' and deem
 as to why the fact is true, impracticable, unneces-
 indeed, absurd." (From a newspaper clipping.)
 of knowledge required to discuss homœopathic
 not intuitive, but procured by the active use of our
 powers, in collecting facts, tracing their relations, and
 the deductions which arise out of particular com-
 of them. The full exercise of these operations re-
 quires of investigations, and processes of reasoning,
 the scope of every untrained mind, and for the elu-
 of which, we cannot depend upon our own resources,
 we have recourse to the knowledge and observation of
 for this labor, the mental faculties require certain
 culture in order to bring this series of op-

Dr. Wanstall's paper was with his consent, submitted to Dr. Fornias by
 of the HAHNEMANNIAN MONTHLY for criticism.—EDS.

erations into effective play, and while they may admit of no proof by processes of reasoning, sophistical objections brought against them, can be successfully combated by clinical facts and verifications.

The scrutinizing eye of man (says Comet y Fargas), in its eagerness to satisfactorily explain every class of facts, frequently loses sight of the reason for their existence, for there will always be an unfathomable abyss, an impenetrable space, and obscure point, which his limited intelligence can never reach. "Notwithstanding our arrogance and positive might, we are only able, once in a while, to roughly outline something of that with which we come in contact in the road of life, without ever obtaining complete satisfaction, or acquiring a knowledge of the essence and primordial cause of all phenomena."

And still there was never a time when our opinions were so well supported by facts.

Homœopathy has been again attacked, and this time, curious enough, by a physician who claims to have practiced our system for thirty-two years, and who only, at this late hour of his career, has found out the errors in which he has been living so long. We could well afford to ignore his desultory tirade, and leave his *olla podrida* at rest, were not that being one of ours for thirty-two years we naturally feel interested in what he will have to say about his disappointments and desertion. This is an "*etiological age*," and we must try to find out the underlying causes, before we can make a correct diagnosis, and principally a definite prognosis of Dr. Wanstall's case. The first question that has come to my mind at the very start of my reply is, what sort of Homœopathy must our prolific critic have practiced during this extended period, and what kind of success must he have had to feel so amply qualified to speak against our doctrine?

I must meekly confess, however, that in the analysis of his mess, I have found something that I am willing to accept as correct, but much that can be discarded as illogical, ill-judged, malevolent and even rude, and it is indeed, an unpleasant task to combat, discreditable admissions and conclusions, and especially try to find out the origin of discordant activity, of ill-timed confessions, and judge of the repentance of old sins. At any rate, we must admit that our *confrere* has selected a very poor time for the renouncement and aspersion of the

once saw fit to embrace, and under which he has been bread for so many years. He has found out his precisely when *Therapeutics* is going through a ter- and when the leading points of his criticism are discussed with stunning sincerity by some of the nt intellects of Europe.

Permit me to introduce Professor Behring, of Ber- fractory still to anything called *homœopathic*, tries, to explain *similitude* in a quite novel way, for he e hippocratic sentence:—"What produces diseases ?"—demonstrate the therapeutic principle of *iso-* that Hahnemann cannot make himself master of it his doctrine. This, I call to die hard, and although ertion shows nothing but a foggy, chafed and truly spirit, we must thank him from our heart for hav- t much. His contention can be successfully com- ve can still leave him in the shade, victim of his n. The great Behring wishing to show the funda- erence between *homœopathy* and *isopathy*, says: *hy*, like *allopathy*, is a purely symptomatic thera- le *isopathy*, therapeutically speaking, does not deal mptoms of disease." As, if, even to practice *iso-* at least necessary to know the disease, and indis- furnish to a given pathological state the corres- hogenic agent. And how can we attain that with- mination of the symptoms?—(Gallavardin).
secure, hesitating admissions of Behring were soon the distinct recognition of *Homœopathy* by Cesar eminent Professor of Psychiatics in the Univer- n, who, in a letter addressed to la "*Revista Hom-* mphatically stated that, of the two hundred Ital- ors, he was the only one who, during forty years d *Homœopathy* in the psychiatric clinics. . . .
nd," he says, "why, a century ago, *homœopathy* d, but to-day, what has the old-school of any value ased on the homœopathic laws?"

is all this compared with the recent acknowledg- mœopathy by the great Professor Huchard, of in the presence of 300 physicians, at the Hospital dly and eloquently asserted: "I have the courage ction and I am not afraid to openly proclaim it."
ly, stunned for a moment, portrayed a smile of

irony, while the orator made allusion to the ultra-infinitesimal doses extolled by Hahnemann in the last years of his life. But incredulity turned into stupefaction when Huchard, sustained by the clinical results of his reformed therapeutics, without hesitation, and with a firm voice, explicitly indorsed the principle of *Similitude*. With the result, that there is a new spirit of reform aroused, among the vacillating ones, to establish in France a free School of Medicine, to teach that which cannot be learned in the Official Institutions of the country.

Does Dr. Wanstall know the meaning of all this, and does he think this is a fit time to philosophise with facts? So great, indeed, is the therapeutic tension of the day, and so marked the repudiation of bygone pretention, that I fear more than one brain is becoming disconcerted and losing its equilibrium and grasping power. Threatening clouds are ahead, and prescribers of every faith are already keeping aloof from the whirlpool of dissent, endeavoring to explain by subterfuges and diatribes the false position in which they have been living, and calculating how they can better protect their professional standing.

Dr. Ewart, of London, told the students the other day that the profession was in the throes of a double crisis, economical and professional. He declared that the growing success in reducing the prevalence of disease (which is not true), and the growth of specialism (which is very true) had contracted the field of general practice, and the process was bound to continue. Henceforth, he stated, its members must devote themselves to the culture of health, preventing instead of curing diseases. In fact, the change the practice of medicine is undergoing was the keynote of several addresses by leading London doctors at the opening of the winter session of the medical schools connected with the London hospitals. The speakers said the day was coming when the doctor in private practice would disappear and be replaced by the public health officer whose work would lie in the prevention rather than the cure of disease. Lecturing to students of St. Mary's Hospital, in London, a few weeks ago, Dr. Osler said that success in their profession was largely a matter of good health. In this respect, he said, doctors were notorious sinners. Among his other salutary advices, he further said: "Be skeptical as to the pharmacopeia as a whole. He is the best doctor who knows the worthlessness of most medicines." "Study your fellow-

allow woman and learn to manage them." On the Professor Grimbert, of Paris, presented to the of Medicine at its last sitting, a paper *on the tendencies manifested during the last decade*, and in illustrate these tendencies he examined statistics of supplied to 219 Paris Hospitals and Dispensaries last forty years, and found that, while certain stand- es remain stationary, there are remarkable varia- ing the greater or less favor in which modern phy- l different drugs. Paris takes 1,200 kilograms of *potassium* for its nerves, and 200 kilograms of 200 kilograms of *opium* have been delivered an- the last forty years, while *quinine salts* and *antipy-* 0 per cent. decrease. On the other hand, *pyramid-* *virine* are gaining favor, etc., etc.

s look as if the public health-officers are to replace ng physicians? Time alone will tell. In the mean- s no better evidence of the approaching danger than medical amalgamation of the New York State Soci- e osteopaths, and still more significant, the recent adopted by the County Medical Society of Philadel- athic) to invite the lamb to enter the den of the here all our heresies will be tolerated, provided we outh shut and obey orders. And if, as I suspect, of Dr. Wanstall is a mission of peace-making, let man understand that the methods he employs are and that such combinations could only occur, when nts acknowledge that gray matter is not bought by at efficiency and not assumption shall reign; that l prejudice must disappear, that the beaten track on must cease; that the ironical smile of the dunce pressed; and particularly so when every discordant prepared to sincerely meet the approaching reform, ming, and fast at that.

careful analysis of Dr. Wanstall's criticism, one to the conclusion that the chief aim of his bombas- e is the repudiation of *Similia* as a natural law of starts his series of invectives by announcing his con- Homœopathy is not founded on a natural law of suppose he is right, which I think he is not, is that reason for our friend to strain his acumen to the rstring, to support a belief that does not alter, in the

least, the meaning and value of *Similitude*? Has this belief ever hindered him from selecting the indicated remedy during his extensive practice? The sooner our detractors understand that *Similitude* and nothing else is the fundamental principle of our school, that the dose is a manner of application, and that the single remedy is a philosophical necessity, the better it will be for their reputation.

Dr. Wanstall sophomorically asserts that each of us has to make peace with his own soul as he goes, and that history will write down, sooner or later what is the truth. And so it will, and this, while the spirit of the Master still survives, and the inflated pygmies of *Contraria* keep on vanishing into obscurity. Let those who ridicule Homœopathy look back into the past and see what an ignominious history polypharmacy has left behind! Our deserter further states that it is universally admitted that no satisfactory definition of the shibboleth *similia, similibus curantur* has ever been formulated. Admitted by whom, where and when? Certainly such perversion of truth may serve to gage the value of his other contentions. But he becomes really ridiculous, even droll, when he connects a certain Dr. Mack with the "*amende honorable*" of *Similia*.

Dr. Wanstall launches out on what he calls the subject of *homœopathic nosology*, which he associates with *dynamization*. I do not know what relation he wishes to place between the branch of medicine which classifies diseases, distributes them into methodic aggroupations, and only deals with generalizations, and the increase of medical effectiveness in drugs by dilution and trituration, but I know that in touching the subject of *dynamization* he has entered into a very complex and dangerous ground, and, in the present state of our knowledge, I can assure him that the task is not a promising one.—(See Carnoy, *Biologie Cellulaire*.—Chauffard, *Lavie*.—Le Dantec, *Traite de Biologie*.—Charrin, *Les Defenses*, etc., *Naturelles de l'Organisme*.—Dinamismo, Comet Fargas.) At any rate, before any one can to-day accept or reject the elements of *animal and physical dynamism*, he must be able to resolve a series of important questions. To make in man the application of this doctrine, one must first determine, what are the forces of the living cells? Have these forces any analogy with the known forces of matter, or are absolutely different? Are these vital forces multiple, and if so, are they independent of each other, or has any of them any influence upon the other?

perhaps, nothing will interest Dr. Wanstall so much as to know how old-school has been of late employing in therapy a form of atonic dissociation, which contradicts his own content: "that the dilution of drug either attenuates or detracts native power." *Colloidal metals*, says Lamatte, presents the best type of substances to break down the ordinary

laws of chemistry. These *colloidal metals* are obtained by throwing out electric sparks between two rods immersed in distilled water, when the liquid becomes colored and contains the metal. To this unknown product, which, in a small dose of 1-300 of milligramme per litre, exerts an energetic action, the name of *colloidal metal* has been given. Filtering cannot separate the atoms, which remain invisible to the microscope and they have been obtained from the fluids of the body by the spectrographic method; three or four drops of blood being sufficient for the experiment. *Colloidal silver*, for instance, when injected into a vein, has been known to remain in the blood twenty-four hours after its introduction; and Gompel and Henri found atoms in the liver, spleen, kidneys and heart of a rabbit, after they had been received by the mouth. *Colloidal metals* possess properties which have no analogy with those of the metals in solution. They seem to come near to the oxydases, and in them, we certainly have substances which have changed their character and increased their energy by agitation. Neoproducts, which in certain infections, have produced remarkable results by increasing the organic exchanges, with overproduction of urea and uric acid. No chemical reaction can explain their properties; and the manner in which they are produced shows conclusively that they contain the dissociated metallic atom. They are not radio-active, for radio-activity is only produced during the separation of the atom. Is the protoplasm a mixture of colloidal substances? Perhaps so..

"The diastases, the toxins, the enzymes have reactions next to those of the *colloidal metals*. They act in extremely small, imponderable doses. *Toxins* and *soluble ferments* are ferments capable of producing effects outside of the organism that created them. If deprived of the infinitesimal quantities of mineral matter, which they contain under a form next to the colloidal state, these substances become inactive. All these reactions are produced in the presence of water, magic combinations without which no organic manifestation can result." The study of the *metallic ferments* may perhaps give us the interpretation of those hydrations, dissociations, analysis or syntheses, which have as a result the organization of our tissues and the manifestations of our vegetative life."

Le Dantec, in his "*Introduction to General Pathology*," has grouped, in a general way, all the phenomena resulting from the introduction into the healthy organism of any for-

whatever. This apparently strange phenomena led to a small number of very concise formula, from the prolific language of organic equilibrium must admit, have in the last few years, rebuilt the physical sciences. Charrin, in his excellent work, *Les Naturelles de l' Organism*," asserts that phagocytes exert its influence with equal force on foreign bodies and substances as upon microbes. The globules show phagocytic, they seize the infinitesimals, dust, foreign and soluble compounds. And, according to Van der Waals, substances held in solution act like gases, and this observation shows that the laws of Boyle-Mariotte, Gay-Lussac also apply to these substances as well as to gases. Dissolved molecules behave exactly like the molecules of gases, they exert a pressure upon the wall of the containing vessel, and endeavor to diffuse themselves through the available space.

Living bodies develop force (heat motion, electric energy, etc.) and the inorganic are not exempt from this law. The forces of life are distinct from the forces of the physical world, do not correspond to some, but the ancient and some modern philosophers attribute to these vital forces the phenomena of pathological processes, and the same is the opinion of modern scientists. I do not entirely admit that life is a complex problem of physics and chemistry. It is no less true, however, that the laws of chemistry is exclusively incumbent to explain the phenomena. But if, in general, we know that life obeys the same laws as brute matter, as the complex of the living molecule is infinitely greater than that of the inorganic molecule, the reciprocal relations of the atoms of the living molecule escapes frequently our attention, and it is for this reason that life seems to include something that is neither physical, nor chemical, nor mechanical, and which implies a foremost positive fact.

The evolutionary history of matter; new forces being discovered and new effects coming to shake our made-up theories. Precious stones made by the use of radium, artificial life by electric processes, vegetable growth influenced by light, anesthesia, narcosis and suspended animation effected by chemicals, the energy of solar radiations contributing to the decomposition of rocks in the bowels of the earth, the mineral waters, and the transmission of the human

thought through the space by aerial telegraphy, are facts crushing the whims of materialists, who are still trying to solve every chemical and biological problem by mathematical equations.

No medical subject can be discussed to-day without a ready comprehension of the evolution of life and decay, with the mysterious behavior and perils of the organic cell, for to deny what is not understood is an unsafe practice that may some day place in evidence the ignorance of the contender. Recent investigations and discoveries, I repeat, have opened new fields of study and practical application, and we are more than justified in calling them to the support not only of *Similia* but of *Dynamization*; that is if by *Dynamization* we understand the increase of medicinal effectiveness by dilution and trituration. These may be revelations to Dr. Wanstall, but are nevertheless well-supported facts. No educated homœopathist can refuse to acknowledge that inert and insoluble substances, such as *Lycopodium*, *Silica* and *Calcaria Ostreorum* become, after the 6th trituration, soluble in alcohol, and endowed with positive curative powers; neither can he deny that the therapeutic properties of certain drugs, as *Baryta*, *Arsenicum*, *Sulphur*, etc., are increased by trituration and dilution; and certainly, in the experiments of Dr. Vannier, of France, with the first three triturations of *Gold*, *Silver*, *Mercury*, *Zinc* and *Iron*, and with crude *Arsenic*, *Kali Bichromatum* and *Jodium*, published in THE HAHNEMANNIAN MONTHLY, August, 1906., Dr. Wanstall may find something profitable to learn. At any rate, we know to-day that no substance can *enter the osmotic current and reach the organic cell*, without its molecules being artificially dissociated by agitation, trituration, potentization, or by the natural, mechanical or chemical processes of digestion. We can see, then, the peril undergone by the living structures when nutritive and medicinal matters do not enter the plasma, irritating the delicate membranes of the digestive canal, as well as the nervous expansions, and creating a taxing elimination of toxic and useless material.

Like the cells of our tissues, our remedies possess dynamogenic power, and there is a mutual relation between them. Moreover, the animal body has command of ways and means by which it can achieve further attenuations of the administered substances. True enough, of the intimate application of such forces and agents we are still in ignorance, but from the

ined we may well infer that such physiological dilution is an important part in both vital and recuperative

er how inconsistent with our doctrine the inclusion of *clinical symptoms* may appear, no clinical observer can appreciate their value, which although relative is nevertheless. To include in our *Materia Medica* those re-verified phenomena may have certain drawbacks for the practitioner, but the skilful clinician who knows the origin and nature of each symptom, can give them their right place in the consideration of any given case. Then, again, who can deny that many *clinical symptoms* would not have been discovered, if produced by provings carried on with more knowledge than it was possible in the days of Hahnemann. Symptoms of accidental poisoning and excessive use of narcotics, it seems to me, should not be rejected. Do not let us let our men believe that whenever an allopath effects a cure it is by the unknown homœopathic quality of the medicine he is using? This is, certainly, very uncomplimentary, and is not possible.

The introduction of *remedies* is undoubtedly an error, but the use of *compound tablets* in our practice, by unscrupulous dealers, is a monstrosity. Compound tablets are well adapted, to sluggers who, with these bastard means and artificial defences of the organism, can always find easy solutions to their problems, and who, certainly, will become convinced that they have a sure retreat in the Allopathic Medical Society, of Philadelphia, which in the future will protect them provided they comply with its established and questionable practice, however, can only harm those who do not wish to know better.

Just as the theory of the *chronic miasms* may be, as Hahnemann calls them, the *phenomena of disease* in its various forms and as they appear to the patient, and nothing else, we need not be concerned with the medical errors of the past, especially when we are fully convinced that *Similia* can keep on its steady course undisturbed and without being influenced by hypothetical considerations. I think, however, that even before Hahnemann's definition included in its definition not only *scabies*, but also *cutaneous diseases of the skin*, becoming pustular and attended by itching, and was chiefly intended to denote those *constitutional, hereditary, morbid states of the*

organism called strumous and characterized by certain lesions of variable intensity and location (tegumentary, lymphatic, osseus), in which the leading features are fixity, hypertrophic and ulcerative tendency and indolent course. Homœopathy has no specifics for these or any other conditions. We have given the name of *antipsorics* to those remedies which have been found most frequently indicated in these morbid states of the system.

All drugs experimented upon the healthy human body are *homœopathic remedies*, whether they belong to the vegetable, mineral or animal kingdoms, and the same rule applies to the *Nosodes*. But to use as an internal remedy any *disease-product* that has not been previously proved according to our methods, is illegal, or at least empiric. The introduction of *Schüssler's Remedies* in our practice is also inadmissible and contrary to our dogma. . . . They lack those essential attributes of true homœopathic remedies, and can only be considered by us after they have been properly proven. Fortunately some of these *tissue-remedies* have been well proved and enjoy the best reputation as homœopathic remedies; but the spirit of contention created by this irrational amalgamation of principles is lamented in the extreme, and we can well thank God that *Similia* is able to take care of herself without any such equivocal supports.

Dr. Wanstall becomes over-tedious with his night-mare of the *law of cure*, forgetting that a homœopathic physician is one who, while adhering tenaciously to *Similia*, adds to his knowledge of *Materia Medica* and *Therapeutics* all that pertains to the great field of medical learning. In other words, *Homœopathy* has its precepts, but has also its limitations, and consequently *palliation*, *adjuvants* and *local treatment* are sometimes admissible, especially in *incurable cases*, such as cancer, advanced tuberculosis, leprosy, etc., but in so doing, let me repeat, we do not need to part with our well-tested methods and precepts; with which, if nothing else, we have corrected the shameful abuses of the past and compelled our opponents to do away with setons, blisters, bleeding, cupping and leeching. Not only is the study of our *Materia Medica* a difficult task, but more difficult yet is to acquire a sufficient knowledge of *semiology* to determine whether or not a given case of disease is absolutely under the control of therapeutics or subordinate to surgery or other branch of medicine.

Allopathy and *Homœopathy* may be considered sym-
schools; but how different the use both make of the
of the *symptoms and signs of disease*. Allopaths
or group systematically the symptoms and signs of
so that these groups or syndromes may serve them as
d or guide to find the seat and character of the trou-
their treatment is determined more by the lesions, or al-
of tissue and function, than by an estimation of the
and meaning of individual symptoms. They deal with
ations; we individualize every case of disease. In
ment, besides a correct diagnosis, we have to consider
rs of symptoms, those exhibited by the patient (*dis-*
nomena), and those obtained by drug-proving (*drug-*
na); and their mutual correspondence (*similitude*)
the physiological action of the drug, is the key for the
ent of our remedies.

us reasoning prevails all over Dr. Wanstall's grandi-
and pretentious tirade, and after reading the whole
ne is at a loss to know the real meaning of so much
g and hammering. He deals with facts as if they
s, and tries to explain the unexplainable by diatribes.
wish us to abandon well-tested and efficacious means,
in line with the enemy, who all over the world is, at
clamoring for reform, and disconcerting those who
s day have clung tenaciously to nauseating polyphar-

Wanstall is in error again when he refers to *statistics*.
ainly only a very limited knowledge of the subject
ve made him speak so rashly about one of our stoutest
g pillars.

inate the unpleasant discussion by advising Dr. Wan-
he knows French, to read the "*Paradoxes on Medi-*
Dr. Besomcon, who claims we have for some time
ng so steadily backward, that paradoxes are often
be nothing but truths. He deals with these *truth-*
s with exquisite tact and effectiveness, so much so
can say of him: "*Castigat ridendo mores.*" Still, he
spare any one, fully convinced as he is, that even in
jects held as exaggerations, there is a certain amount

DR. WANSTALL'S REJOINDER TO DR. COPELAND'S REPLY.

I THANK Dr. Copeland for the dignity and courtesy of his reply.

Dr. Copeland says: "Just what Dr. Wanstall means by saying, 'the homœopathic law has not been and cannot be defined,' I hardly understand. Certainly it is absurd to consider the inability to define the homœopathic law as 'one of many reasons to be urged against it as being a law of nature.' Doubtless there are multitudes of nature's laws, not only not defined, as yet, but whose very existence is undreamed of."

The last sentence I cannot dispute; certainly, unknown laws cannot be defined. Let us suppose that yeast, and the phenomena of fermentation gave rise to the hypothesis of the existence of bacteria. Bacteria or the laws of bacteria, cannot be defined as long as they are in the hypothetic stage. With the actual demonstration of bacteria, their existence ceases to be an hypothesis and becomes a scientific fact, and the growth of the science of bacteriology begins, and a definition of this science becomes a possibility. But the science does not rest here. The scientific study of the initial discoveries in bacteriology become in turn the occasion of new hypotheses, which in turn lead to new discoveries and new scientific facts, and so on *ad infinitum*, regardless of where they lead. Let us contrast this with the conditions of the so called homœopathic law.

Any result attained under its practical working, has the simple value of a circumstance occurring in the experience of an individual, which he, or others, may or may not be able to duplicate if a similar occasion arises, but the occasion cannot be created. If a similar occasion arises it will not come under the definition of a law of nature:—"The uniform occurrence of natural phenomena in the same way or order under the same conditions." These results, in themselves, do not constitute scientific facts, they do not even establish on a firm foundation a clinical fact; but, only, *that a collection of symptoms, theoretically constituting a disease, whose counterpart has been found in the pathogenesis of a drug, which, besides these, comprises many other symptoms which are both dissimilar and contrary to those of the patient, have disappeared at sometime subsequently to the administration of the drug as a medicine.*

subsequent "cures" one must go back to the same start over again. No previous experience (according to the rules) can fix the place of any drug as a remedy in the treatment, except from a purely symptomatic standpoint.

What has to do with the symptoms themselves, both of the drug and the disease? What standard of relative truth and accuracy is to be the standard for the prescriber for all the symptoms of the drug, not for the scientific truth and accuracy? By what standard is to be known whether he has or has not uncovered or made manifest the patient's latest symptom? By what standard is to be known whether the patient has or has not correctly described his symptoms as he has made manifest, and which of these are permanent to the disease and which to the patient himself? But yet the scientific foundation of natural law is based on a relationship between two things, which have not been separated, and cannot have from their very nature, the basis of scientific accuracy. And even according to the practice, uniformity of application does not prevail, but all the stress on one class of symptoms, another class, and still a third on the "*totality*," etc.

Now, is the so called homœopathic law to be defined as the law of homœopathy, or is its practice; and if the latter, what are its practices? I cannot conceive of a definition of the law that can be made, and would be accepted, by a majority of its practitioners in the present state of intellectual culture regarding the idea on which it is based.

Dr. Copeland continues: "Most of us will be satisfied to accept Dr. Wanstall's definition of homœopathy, 'simply a method of treatment, according to which drugs are selected for the cure of disease.'" He says homœopathy is an "hypothesis," but the accepted definition of the word law as it relates to the physical world, one should be quite justified, technically assuming that the working hypothesis of Hahnemann is a law, and that our doctrine is, in the true sense, a law."

It is apparent that homœopathy, or the homœopathic law, was an hypothesis, but that it sprang full armed straight from the brain of Hahnemann, as Minerva from the head of Jove. "In the sciences," an "hypothesis" is "a conjecture assigning provisionally a cause for known effects, and used as a basis for their arrangement and classification as a starting point for experiment and investigation."

tion." "Loosely and generally, an unsupported or ill supported theory; a mere guess or conjecture."

"Personally" Dr. Copeland is "willing to admit that the theory (?) of similars is not as well founded, and certainly not so demonstrable as is the law of gravitation." He continues, "in the true scientific sense it is an hypothesis which perfectly explains every phenomenon familiar to the medical mind; it offers a reasonable, sensible, convincing, and satisfactory explanation of *all* therapeutic procedure." Dr. Copeland then says: "Applying the same methods of experimental research as are elsewhere considered convincing, every question put to nature regarding the truth of *similia similibus curantur* has been answered in the affirmative."

In view of the positive and all embracing character of the two latter statements, one would not expect the admission that "the theory of similars is not as well founded and certainly not so demonstrable as the law of gravitation;" and the acceptance of my definition of homœopathy, as it plainly implies the non existence of natural law as its foundation, without the acknowledgement of intellectual confusion regarding the idea on which it is based. Of course, by "the same methods of experimental research," Dr. Copeland means the same scientific accuracy that would be necessary to demonstrate, let us say, the gonococcus. Suppose some one asked for a similar, single, simple and infallible scientific demonstration of the homœopathic law, with what special fact could it be answered?

Dr. Copeland says, "unfortunately the exhibition of the remedy is not followed by an immediate disappearance of the disease. To apply it with mathematical certainty, one must have infinite power to elicit the symptoms and infinite knowledge of drug action. This involves two impossible conditions: the proving and the knowledge of proving of every possible drug substance; that the physician is wise and clever enough to draw from the patient a complete picture, including his every symptom. Could these conditions be met, one could apply his absolute knowledge and with mathematical certainty cure every patient (?)."

The idea here expressed is so extraordinary that one necessarily hesitates to attempt to expose its fallacy, and realizes the futility of attempting it. When an idea obsesses an individual, or a body, until it has acquired all the characteristics of a religion, and is placed before the world as a practical theology

neutics, probably the less said the better. However, Copeland qualifies this ideal by believing that such wisdom is possible with God, and on this account the application of the theory of similars can never become an exact science. It is Dr. Copeland from granting Dr. Wanstall's case. He sees no discouragement in this, and says, "the one who knows most of materia medica, the one who knows most of human nature, the most of disease processes, the most of physical diagnosis, to such an one will come the greatest number of cures."

Would he cure every patient with mathematical certainty it would be necessary to have perfect pathogeneses of every possible substance and a corresponding power to elicit sympathy. Can he not dispense with all other medical knowledge as an occupier of cerebral capacity, not alone as superfluous but as an actual hindrance? To seriously discuss Dr. Wanstall's ideal one would require his definition of "a cure," which is not less difficult to define than the so called law of similars. When Dr. Copeland says: "Unfortunately the exhibition of the remedy is not followed by an immediate disappearance of the disease," he, probably, does not mean that this is the case, or he would have had absolutely nothing on which to have built his ideal.

Copeland, quoting Dr. Boericke, says: "We must learn to distinguish between the great underlying principles of homœopathy, and the art of applying these principles, as *two entirely different facts.*"

Law of cure is as inflexible as that of gravitation or

as it is in the whole domain of human knowledge another nature concerning which man "must learn to clearly distinguish between the great underlying principles and the art of applying these principles, *as two entirely different facts?*" There is intellectual confusion regarding the idea on which homœopathy is based, personified. In bacteriology, chemistry, or any science based on natural law, we know the force from the inflexible necessity of adhering to its principles in practice, and failure to adhere to its principles does not result in incomplete success, *but in total failure.* The comparison is a singularly unfortunate comparison. The savage must unconsciously obey the inflexible operation of its principles in practice or have his rude habitation

tumble about his ears. The man who descends under a parachute from a balloon sent aloft from a country fair, although he, probably, knows nothing, technically, of gases lighter than air, gravity, the resisting power of air, or the tensile strength of silk, must play the game according to the rules or break his neck. And what of the builders of ships and submarines; the architects of cathedrals, towers and simple dwellings; the engineers of bridges and tunnels? Even the ignorant mason cannot ignore them with impunity in the construction of a plain wall. The fact that the necessarily imperfect application of the principles of homœopathy results in more and less imperfect success, *and not in total failures*, is in itself evidence that they are not based on a natural law, and that the natural laws underlying the imperfect successes are not yet even hypothetical.

Speaking of the "art of homœopathy," Copeland, quoting Boericke, asks, "is not this necessarily, and in the very nature of things, *a thing of growth, of development, and hence of imperfection*, depending as it does, upon men but partially trained, at best, to such work?"

"We fail because of the imperfection of our art, because of our youth, her imperfect tools, *our own imperfect conception of its principles*; these are the only obstacles to successful application of the *perfect principles* which they seek to carry out."

"Recognizing the distinction between the science and the art of homœopathy, we are enabled," etc.

To Dr. Copeland's question: "is not this ('art of homœopathy') necessarily, and in the very nature of things, a thing of growth, of development," I answer, yes, certainly, if it is the carrying out of the inviolable conditions of a natural law; but why is it a thing of "imperfection" if the principles are "perfect," and why does it depend "upon men but partially trained, at best, to such work?" Have they not had the most prolific and progressive century in science the world has yet seen in which to do their chosen life work, and to which they apply themselves more hours a year than men of any other profession. Or have they been handicapped by an inherited intellectual confusion regarding a plain distinction between an art and a science, the shadow of a law of nature and the substance, the reality and the ideal?

"We fail because of the imperfection of our art, because of our youth (?), her imperfect tools, our own imperfect con-

ts principles," is all only too true; but are these obstacles to successful application of the perfect which they seek to carry out," or is the reason fundamental are not the "principles" themselves imperfect from nature?

riefly picture the historic and philosophic place of r in medicine. In the absence of a knowledge of gic action of drugs and the etiology and pathology and possessing a knowledge of two facts; that ifest themselves by symptoms and that drugs pro- n man, it was perfectly natural to believe that God ases and that he also created drugs for their cure, ous inquiry followed: how could these two things for man's advantage? It was a logical, but prim- istinctive, impulse to use that relationship wherein pposite or antagonistic, with other empiric refine- e same idea. Of later development and a more was the immaterialistic and subtle suggestion, greater refinement and a greater variety of appli- ing that relationship wherein they were similar. ng of drugs on the healthy and the idea of "simi- d have been the embryonic or hypothetic stage of gic action of drugs, as it would have been a per- al step from one to the other, if the (homœopathic) ot already been preempted by the idea of a natural e, the alpha and omega of homœopathic science, he absence of the scientific spirit in homœopathy, mon reproach of having produced nothing beyond

growth of a knowledge of the physiologic action d of the etiology and pathology of disease came anges in therapeutic thought and practice: first, the s in the treatment of disease on a rational or scien- second, the treatment of disease by other rational e means, and a growing skepticism regarding the ugs (therapeutic crisis), with the inevitable result erapeutics, from a symptomatic standpoint, or from int, receded proportionately to the advance of these nd rational measures. It is pertinent to ask here mœopathy is meeting this therapeutic crisis, as it if, if it is based on natural law, by continuously on and supplementing all other therapeutic pro-

cedures, or is it, even in the ranks of its own adherents, suffering the same fate as other drug therapeutic measures?

Hahnemann had the genius to develop the principle of similars. And well would it have been if he had stopped here. Whether it was the spirit of his age, his religious and dogmatic habit of mind, or his profound belief in God that led him to proclaim this principle to be a law of nature the only natural law of cure, by this he secured for it its isolation, and inflicted a therapeutic theology on his followers, from which they have not been able to free themselves intellectually in a century. On top of this came his theory of dynamization, and the dilution of drugs on the centesimal scale. A mistake, although perfectly natural in view of what had gone before, almost as great as the former, and one that could not have been made if his law of cure had been a law of nature, in which event there would have been a law of dose. Thus were the minds of homœopathic physicians led into transcendentalism by the blending of these two ideas. In the minds of many homœopathic physicians dynamization and the homœopathic law are practically equivalent terms. It is only in the last third or quarter of a century that the school has seen the real necessity of shaking them apart. Had Hahnemann diluted his drugs by the simple mathematical ratio, and not by the square of the distance, it is more than likely that he would have saved the school its transcendental habit of mind, which we all acquire in greater and less degree, and that the ten-thousandth part of a drop would have satisfied the naturally transcendental mind as well as the ten-thousandth potency, or dilution, now does. And yet we would have been on more or less substantial ground, intellectually as well as materially.

The modern progress of real science in medicine has created an intellectual unrest among homœopathic practitioners; hence, the desire to free homœopathy from the odium of dynamization, the reactionary impulse in reasserting, with increased vehemence, the solid foundation of its natural law, and the progressive effort to establish and prove its scientific truth and place it in harmony with science in general, by creating a scientific materia medica to meet its supposed scientific requirements.

This discussion is not vain, and the question is not one of no moment. The school is responsible for the legacy it leaves its successors, and it can no longer maintain its claim to the

a of a natural law of cure by a loose phraseology, inconsistent and glittering generalities, but only by the character of its cures, and the true scientific standards by which they are obtained. If it holds, and it is not a fact, it will mean that its science is a pretence, and the science it adopts is imitative and not that its intellectual activities are limited by a dogma, but that it has not full freedom to follow the whole progress of science and its own experiences to a logical conclusion; the science hopes that are delusive and ambitions that are futile; we know that the limitations of homœopathy are the limitations of nature and not the limitations of man; injustice to the intellectual development of present and prospective students by continued quarreling with apparent inconsistencies of practice which are the natural outcome of its real prin-

ing, I wish to say, no one realizes better than I do the bitterness of this argument, and the danger under the impression of placing myself in a false position, but I can only say that I practice the same homœopathy I have always practiced with this exception, that I hope it is better and

WANSTALL'S REJOINDER TO DR. FORNIAS' REPLY.

in addition under which the HAHNEMANNIAN MONTHLY was to publish my paper was that the editors select two questions to answer it, giving me the privilege of selecting a question which I declined, and the closing of the discussion; the replies to appear simultaneously. They further stipulated that replies would not be permitted.

Dr. Fornias has placed Dr. Wanstall at a great disadvantage by his argument and resorting to personalities which I find difficult to ignore.

I have noticed the coarsely veiled sarcasm of Dr. Wanstall's quotation "From a newspaper clipping," and the two sections, the bearing of which, candor compels Dr. Fornias to say he does not understand, he hesitates a moment to say. Dr. Fornias begins his abuse of the opposing attorney by a reply to his argument. Dr. Wanstall has "practiced the system thirty-two years," and still practices it, and

his practice of it has taught him the error of its basic dogma; not, as Dr. Fornias intimates, at this late day, when therapeutics is going through a terrible crisis, in order to facilitate his mounting into the band wagon, but on the contrary to spare himself that necessity, if possible.

If Dr. Fornias had devoted as much attention to homœopathic literature as he seems desirous of impressing Dr. Wanstall he has to that of foreign savants, professors and physicians, not homœopathists, Dr. Wanstall would not be under the necessity of informing Dr. Fornias, personally, that his "renouncement," as Dr. Fornias regards it, began very early in his professional career as a homœopathic physician.

The fact that advanced and independent thinkers in the profession of medicine, all over the world, are in the throes of a therapeutic crisis, simply places Dr. Wanstall in the ranks of such men, and takes him from the ranks of the "stand-patters," who, like the Bourbon, "forget nothing old, and learn nothing new." The trite illustration of Galileo, simply illustrates the mental attitude of such men toward new ideas which would disturb the complacent atmosphere of their *lares et penates*.

The mission of Dr. Wanstall is not a mission of peace-making, but one of reform within our own ranks. Please permit him to say that while the leaders and controllers of what may be called homœopathic thought in our societies and colleges are propagating the anti-amalgamation spirit—I hope not unselfishly—a process of benevolent assimilation, of some moment, is steadily going on within and without their charmed circles, although it has not yet embraced himself.

Behring, Cesar Lombroso, the great Professor Huchard, Ewart of London, Dr. Osler, and Professor Gimbert of Paris make quite a formidable array of names, but what under the sun have they or their opinions to do with the argument of Dr. Wanstall's paper?

Dr. Wanstall wishes to say that Dr. Fornias is quite correct when he says, "that the chief aim of his (Dr. Wanstall's) bombastic harangue is the repudiation of *similia* as a *natural law of cure*," and he is further quite correct in asking, "is that sufficient for our friend (?) to strain his acumen to the point of bursting, to support a belief that does not alter, in the least, the meaning and value of *similitude*?" Dr. Wanstall hopes he did not, as he did not intend to, asperse the meaning or value of "*similitude*." On the contrary, the very crux of his entire ar-

all's explanation of the appearance of the word in his paper where it should have been "posology" consulting his original MS., he found the word "posology," and from his inquiry of Dr. Bartlett stood in the MS. sent him, and in the proof, he giving reply:

Sincerely yours,
BARTLETT.

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garding the phenomena within their own experience, reject every impulse to seek elsewhere in nature or science for any other explanation save the homœopathic law, leaving them to others to exploit scientifically."

Why did Dr. Fornias not quote some homœopathic authority? In all probability because the only authority he could have quoted from that source would have been from the devotees of the ultra high potency, so called, which he himself, probably, repudiates.

In closing Dr. Wanstall would say to Dr. Fornias, that he is thankful for Dr. Fornias' "meek" confession, that in the analysis of Dr. Wanstall's "mess" he found something he was willing to accept as correct; that Dr. Wanstall can dispense with Dr. Fornias' pity regarding the kind of homœopathy he has practiced, and the results that have attended his practice of it both to himself and his patients; and finally, that Dr. Wanstall does not know French.

CHRONIC DILATATION OF THE STOMACH.

BY

THOMAS BRADLEY, M. D.

(Read Before Homœopathic Medical Society of Germantown, Phila.. Dec. 16, 1907.

THE title "Dilatation of the Stomach" is given to this paper for the want of a better or more scientific one. This name, or Gastrectasis, is accepted by all the writers in their works on the general practice of medicine, including Osler and Goodno, but most of the authorities on Diseases of the Stomach claim that this name does not accurately describe the condition.

I do not intend to take up your time by giving you the various reasons advanced by each writer in support of his particular name for this condition, but as many of them use their own particular name in their works it may be of interest to know some of the names suggested by some of the best known Gastrologists.

Boas of Berlin, who has probably done more original investigation in this condition, uses the term "Chronic Gastric Insufficiency." Ewald prefers the old term, "Dilatation of the Stomach," or "Gastrectasia." Bordman Reed accepts Ewald's title. Rosenbach prefers Insufficiency of the Stomach, Eichorn uses Ischochymia. Bauveret prefers "Hypotonia."

Motor or Mechanical Insufficiency of the Stomach." Boas uses a combination of Riegel and Boas' title.

Reason probably for this contention in regard to a name perhaps to our inability to make a diagnosis of this condition from the size of the stomach alone. Anatomically the greater or greater curvature of the stomach is found at a point a little lower than midway between the xyphoid and the umbilicus, but a stomach with its lower border found at the level of the umbilicus, or even lower, is not necessarily a dilated stomach. Some time ago I examined twenty adults to find the location of the stomach, none of whom had ever suffered from any gastric disturbance. In fourteen I found the greater curvature at the normal point. In one it was a little above a point between the umbilicus and the xyphoid. In two it was one finger's breadth above the umbilicus, and in two it was one finger's breadth below the umbilicus, and in the other one it was two finger's breadths below the umbilicus. To the last five cases in which the stomach was anatomically large without any gastric disturbance Ewald has given the name "Megastria" which is not generally accepted. Personally I do not attach much importance to the size of the stomach if its motility is unimpaired, and if it empties itself within the normal time.

There are two general causes of Dilatation of the Stomach: first, Mechanical Stenosis of the pylorus; second, Atony of the stomach. Among the many causes of Mechanical Stenosis are cancer of the pylorus, pressure of mesenteric vessels as they cross the duodenum, hypertrophy of the pylorus due to chronic inflammation, kinking due to Gastropexia, spasmodic contraction of the pylorus due to gastro-succorhoea, a tumor in some of the abdominal organs pressing against the pylorus, or from kinking of the pylorus due to the dragging of a movable right kidney. This last is disputed by Riegel.

Of the causes which lead to atony of the muscularis of the stomach leading the stomach with indigestible food, partaking of a purely vegetable diet, occasionally drinking large quantities of fluid. I have seen a case and several have been reported in which the only known cause was from taking too large quantities of milk, while taking the so called milk cure. In the last few years a number of cases have been reported following an attack of La Grippe. Cholelithiasis, according to Boas and Riegel, is frequently the forerunner of dilatation.

Some of the symptoms in Dilatation of the Stomach are characteristic, particularly the vomiting which does not occur after each meal nor each day, but may only occur every second or third day and is usually in very large quantities, from one to two quarts or even more. Constipation and a diminished secretion of urine are most always present. Some patients complain of hunger and thirst and eat and drink freely, others have no desire for food. After eating there is usually a feeling of heaviness and discomfort followed by eructations of gas which give no relief. Added to these symptoms we may have the symptoms of the disease which has caused this condition. In the later stages we find a marked loss of flesh, coldness of the hands and feet and general weakness. The tetanoid condition or true tetany may develop at this time.

In the diagnosis of this condition we depend most of all upon the stomach tube, by its use we can determine whether the stomach is emptying itself within the normal time or not. In Dilatation of the Stomach we will find remains of food that has been taken the previous day and in some cases two or even three days before. We also make use of inspection palpation, percussion, auscultation, and auscultatory percussion. In percussion and auscultatory percussion, it is always best first to inflate the stomach with air; a divided seiltz powder being frequently used for this purpose. I have several times been disappointed in its use, in that the volume of gas created was not sufficient to inflate the stomach. At present I use a politzer bag on the end of a stomach tube; this is a much better method as we can introduce whatever quantity of air we desire and if the patient experiences any distress we can allow the air to escape in a moment. Another advantage in this method is that if you hold the bell of the stethoscope over the abdomen you can locate the lower border of the stomach by the inrush of air. The Gastro-Diaphane is also of great value in showing us the location of the lower border of the stomach. The splash on succussion of the abdomen is diagnostic of dilatation.

After diagnosing a Dilatation of the Stomach we must determine whether the dilatation is caused by stenosis of the pylorus or an atony of the muscularis; if caused by the first it becomes our duty to refer these cases to the surgeon as early as possible and not wait until emaciation and weakness preclude all possibility of a successful operation.

To determine a stenosis of the pylorus I follow the method

by Einhorn, that of giving with a meal some easily digestible substance which does not digest easily, such as chestnuts, or partly cooked rice. The day following the meal the stomach tube is introduced and its contents removed. If the finer particles of the food pass into the stomach and the rice and nuts remain it is one of stenosis. In atony, whatever part of the chyme passes through the pylorus goes through, irrespective whether it is fine or coarse. While in stenosis nothing but the finest particles pass. Visible peristalsis is also indicative of a narrowing of the pylorus.

Treatment of Dilatation of the Stomach due to a stenosis of the pylorus must always be a surgical one. If due to atony, a change of the diet, lavage, and intra-gastric electricity always gives relief. Both schools of medicine agree that the use of cathartics are of doubtful value. Most of the works on general medicine advise the giving of very little liquids on account of the dilatation. At the present time this has been proven to be wrong. For, though heavy, liquids leave the stomach more easily than a solid food. These cases, after treatment, while they feel good as they ever felt before this condition came on, they do not recover; they must always be careful of indiscretion.

Case. Mr. E. L., age 49. Family history negative. Personal history:—In August commenced with a feeling of epigastric pain and regurgitation, relieved by vomiting, which occurred about once a week. Appetite good. Saw patient for the first time. He stated he had lost considerable weight. At this date weighed 120½ pounds and felt very weak. Did a Maltin test breakfast and removed about 1½ pints of gastric contents. Total acidity 40, propeptone, peptone, free HCl. acid present, lactic acid present, microorganisms in large numbers, Boas bacilli.

Examination three days later and ordered him to take a diet consisting of soup, meat, vegetables, and ½ cup partly liquid. The next day removed two quarts of stomach contents from fasting stomach, rice recovered, also some peas which had been eaten some two days before. After removal of the meal the residue was washed out. Patient weighed 125¾ pounds before the removal of the meal, and after the removal weighed 125¾ pounds. Physical examination:—Patient is emaciated. Chest organs negative. Lower

border liver could not be palpated, lower border of the stomach found three finger breadths below the umbilicus. Small nodular mass found about three finger breadths above the umbilicus. The diagnosis of Dilatation of the Stomach due to stenosis of the pylorus due to cancer was made and an operation advised. Patient entered hospital that day, was operated on on the day following. A growth was found extending along the greater curvature to the pylorus. Adhesions throughout the abdomen. Cancer was too large to permit a resection so a gastro-enterostomy was performed. Patient left the hospital ten days later apparently well.

Eight weeks after leaving hospital patient wrote me he weighed 152 pounds. Had gone back to his usual occupation and felt as well as he ever did in his life. Eleven months after the operation I was called in consultation to see him; he had been confined to bed about one week. He was losing weight rapidly and vomiting every day. At this time the mass could be distinctly seen through the abdominal wall. The gastro-enterostomy opening was probably closed by the growth. Patient died shortly after.

Case (2). J. R., age 32. Family history negative.

Personal history:—About eighteen months before I saw him, commenced to cough, some loss of weight, was advised by his family physician and consultants to go west and live in the open air for a time on account of his lungs. He went to Colorado where he resided for eight months on a ranch. He awoke one morning with a severe pain in the stomach accompanied by intense nausea. After two hours of suffering he vomited from one pint to one quart of fluid. This was followed by relief. These attacks came on always in the early morning. The attacks began coming closer and lasting longer; after the attack the appetite was good, felt no discomfort although he felt he was getting weaker. This went on for a period of several months when he concluded to return east, thinking his dyspepsia as he called it was due to the coarse food he was eating. After returning east the attacks became more frequent. He would awaken suddenly with pain about 2 a. m., followed by nausea and vomiting; then there was a period of relief for several hours and then again pain, nausea, and vomiting. This attack would last several days, and then some morning he would awaken without pain or nausea and get up and eat his breakfast and feel good for two weeks or

the attacks would return again. This had continued several months before I saw him.

Maciated, chest at this time negative, lower border extended to the costal border, stomach one inch above umbilicus, tongue slightly coated, urine negative in amount, thirty-six ounces in twenty-four hours; somewhat loose due to large doses of purgative medicine had been taking. October 17, patient had taken water and toast, three hours afterwards vomited 300 cc; this matter had total acidity of 66, Free HCl. 10, pepsin, and propeptone plus, weight 94 pounds. Early in the morning vomited 300 C. C. of pure acid, Free HCl. acid was present, total acidity of 40. Later, after the attack had passed, an Ewald test was given, 100 C. C. recovered, total acidity 90, acid 57, between the attacks food remnants were present after which they were partaken.

Treatment was made of Dilatation of the Stomach and Hemorrhoea; patient was given daily lavage and placed on a diet consisting largely of nitrogenous foods. Alkalies were given, fourteen milamperes of galvanism intra-abdominally every other day for a period of eight weeks. Intravenously one dram of a solution of nitrate of silver, 1 to 1000, for eight weeks' treatment patient had gained 17 pounds, vomiting and pain had disappeared, but, as he experienced the nausea at this time was worse than the pain, vomiting combined had been previously. Patient collapsed on the administration of ether and was thought best not to operate at this time. Lost trace of consciousness shortly after.

Mr. J. C., age 44 years. Family history negative.

History (The following P. H. was written by patient) For about three years prior to this time (May 1905) I was occasionally, perhaps once in two or three weeks, afflicted with severe pain in the stomach, accompanied by a pressure outward, causing me to have very labored and short breathing. This I relieved by drinking hot water which caused eructations of gas. Twice in such attacks I ate undigested food. In November 1906, Thanks-
giving I had somewhat of a similar attack, though at this time it was a very severe pain in the small of my back and

a lump-like body, very painful, in my stomach. Both the pain in my back and the lump yielded to medical treatment, the lump appearing to move toward the pyloric end of the stomach.

Nothing more was observed until between Christmas and New Year's 1906-1907, when I was suddenly, at 4 o'clock p. m., attacked by a severe pain in the right side of the abdomen. After eating supper no pain was felt until 9 o'clock when the same pain occurred. Upon retiring the pain was very severe in every position except when lying on the right side, when no pain occurred. This pain continued to return about 3 to 4 hours after each meal and continued until I ate a meal or reclined on my right side. After two days' suffering thus I began doctoring, and continued taking medicine for it until it finally ceased entirely about the middle of February, 1907.

There was no further pain or notice of anything wrong until March 29, 1907 (Good Friday), when I awoke sick at my stomach. About 8 o'clock I vomited almost a basin full of brownish-green matter. From that time to the present I lost flesh and strength rapidly, vomiting at first every two or three days, but later more frequently until it became a daily occurrence and sometimes 3, 4 and 5 times in twenty-four hours.

Physical examination:—Chest negative, marked rigidity extending from below xyphoid to the right. Lower border of the stomach 4 inches below the umbilicus; in fact, stomach seemed to occupy entire abdomen. Patient emaciated and hardly able to walk. Original weight 154 pounds, present weight 124 pounds. Gave an Ewald test breakfast and removed a quart of contents. Total acidity 36, Free HCl. acid present, rennet, peptone, propeptone present. Washed out the stomach and ordered patient to take with his meal that night dish full of partly cooked rice, next morning one quart and one pint of contents removed, entire amount of rice recovered. Patient was not seen for three days, he informed me that he took rice with meal the night before but that he had since vomited; three quarts of contents were recovered from a supposedly empty stomach which contained rice; several meals were given, all the rice always found.

Dilatation of the stomach due to stenosis was diagnosed, an operation advised, patient went to hospital the following day and was operated upon the next, a growth was found on the liver which pressed against the pylorus, causing the stenosis; a gastro-enterostomy was performed and patient left the

n days later. Through the kindness of this patient's physician I had an opportunity to examine him a few days later. His weight now is $151\frac{1}{4}$ and he claims that he feels better in his life. The rigidity is not nearly so marked. After leaving hospital I ordered protonuclein 10 grains three times a day, which he has been taking ever since.

). Mrs. F. E., age 59 years. Family history nega-

l history:—About a year ago previous to December, 1906, she enjoyed good health. About that time she had an attack of La Grippe. After recovering she commenced to feel ill, she called dyspepsia. Had waterbrash, feeling of fullness, nausea all the time, in July commenced vomiting in the morning, at first vomiting was four or five weeks apart. Present, January 17, 1907, she vomits every two or three days. Feels better in the morning, nausea commences one or four hours after she arises; breakfast her best food. Has been constipated since the attack of La Grippe, soreness in stomach when drinking anything warm; poorly nourished. Weight 119 pounds; had weighed 196 pounds.

l examination:—Chest organs negative, lower border extends to costal border, urine negative, decreased in weight 4 ozs. in 24 hours. Gave an Ewald test breakfast; in one hour, recovered 200 C. C., some food having been eaten two days before, pieces of cabbage, raisins, etc. Specific gravity 35, free HCl. acid 17, rennet, peptone, propeptone, starch minus, rethrodextrin, achrodextine plus.

She was given an ordinary meal consisting of meat, potatoes, vegetables, a dish of partly boiled rice, and told to eat the peanuts an hour after the meal. The next day a stomach tube was introduced and $1\frac{1}{2}$ pints of contents were removed and some of the peanuts. The following day another meal of the same kind was given, when less of the rice was

is of dilatation due to atony was made. Treatment—Savage every other day followed by ten minutes of faradic electricity, faradic current being used, 20 drops of hydrochloric acid before each meal, and 20 drops after the meal, 5 grains. Hydrastis tinct. in 5 drop doses three times a day. When the stomach was regulated, a smaller quantity nitrogenous

foods, and a slightly larger quantity of starches. This treatment was kept up for seven months.

The length of time between treatments was then gradually increased until she was only taking one treatment every five or six weeks. Strychnia 1-30 gr. three times a day was substituted for the Hydrastis after the second week. At present patient feels as well as she ever did, says she feels strong, but has gained very little weight.

THE TEACHING OF MATERIA MEDICA.—The glaring fault of the homœopath, who, in a variety of conditions, employs drugs in physiological doses, is his ignorance of both the action of the dosage of such drugs. The rational employment of so-called physiological doses and powerful substances is to produce immediate effect, hence the necessity of a thorough knowledge of the *modus operandi* of these drugs and their effect upon circulation, the heart, etc. It is not sufficient to know the homœopathic indications of Glonoin, but if the homœopath tries to employ nitroglycerin, he should be familiar with its dosage as well as with its positive effects upon capillaries, etc. With some of the more common drugs employed in their crude and massive doses ignorance is a very dangerous thing, and this ignorance is far too prevalent in the homœopathic school. And really, if the homœopath desires to employ old school measures, he should, at least, be able to employ these measures with as much intelligence as the old school practitioner.

It would be wise, especially for our teachers of *Materia Medica* and our writers, to lay more stress upon this, in order to avoid, especially by men given to the use of the low potencies, the danger of prescribing in such dosage as to produce not necessarily toxic symptoms, but physiological effects.

While we are upon this subject, we cannot help but mention another lamentable fact, and that is that oftentimes the homœopath will employ medicines in such large doses as precludes the drugs manifesting any but a physiological effect. Hence it follows that the effect of the drug, which was really the aim in the prescription, is completely lost, and it has a directly opposite effect.—*The Chironian*.

[Attention is called to this article as an example of confusion in statement. Our comment is, that "old school measures," "massive doses," and "physiological effects" have as much and as little to do with homœopathy as dog-biscuit has.]

A moderately hard, palpable mass in the right iliac region is often diagnosed as acute apendicitis with inflamed omentum around the appendix. But ileocecal tuberculosis with inflammatory exudate should be kept in mind.—*Amer. Jour. Surgery*.

EDITORIAL

THE ALLEGED ILLITERACY OF MEDICAL STUDENTS.

General public of the State of Pennsylvania has recently
ated to a discussion of the alleged illiteracy of medical
and the laxness of the requirements for admission to
colleges. This discussion was started by Dr. Henry
President of the State Board of Examiners represent-
old school State Medical Society. His allegations were
on the bad spelling and still worse rhetoric exhibited
examination papers of the candidates for State license
ce medicine. The remedy proposed by him is the rais-
ne standard of admission to medical colleges, so that
e only those who have had a full high school course
ivalent shall be accepted.

e face of the evidence, Dr. Beates's charges appear
been sustained, for undoubtedly, many of his exhibits
ave discredited pupils in the lower grades of the public

When, however, one comes in close contact with the
nts, he discovers that they are by no means as illiterate
eem to be. For example, we have in mind a student
spent two years with credit to himself in one of the
universities of the East, and yet the spelling in his
tion papers was most wretched. We also recall a first
an of the school from which Dr. Beates himself grad-
This gentleman exhibited a remarkable talent for pho-
lling, and try as he would, he was never able to over-
weakness. It may be assumed therefore that a good
ary education does not insure thorough knowledge of
phy and other fundamental branches. Of course we
decrying the value of an education, for no one esteems
than ourselves. We are simply stating exceptional
show that deductions should not be made too sweeping,
edial measures too drastic. As examples of men who
d high literary and professional ability we have in
o physicians who had no "schooling" after the age of
s. One became eminent in his profession, the other

was a highly respected general practitioner. Both men were self educated.

The vast majority of the so-called illiterates come to medical colleges with certificates of proficiency given by various preparatory schools. This being the case, we cannot but express surprise at the bad exhibition they subsequently make of themselves at State medical examinations were it not that a ready explanation is available. For four years, these gentlemen have been occupied for several hours daily taking notes of medical lectures. Writing hurriedly, anxious only to jot down facts, caring but little for orthography, numerous mistakes must occur. Their deficiency is made still greater by the all too prevalent habit of studying from lecture notes to the exclusion of text-book reading. Thus it is that notwithstanding a first class general education, students acquire bad literary habits. The only way to correct the evil is to insist that medical students shall own and read standard medical works. We are told on good authority that the sale of text-books among the students of the colleges the country over has decreased greatly of late years. Certain it is that in our own college days students did not exhibit the illiteracy alleged by Dr. Beates to exist at the present day; and yet at that time the required standard for admission to colleges was much lower than at present. Fewer branches were then taught in the medical course. The outlay for books being correspondingly low, students paid less attention to their notes, and depended very largely upon their text-books. It is very doubtful if the colleges are derelict in accepting uneducated men. We believe that their graduates would make a better showing if text-book reading was made obligatory. Everything is in environment and habit. If the student is accustomed to the sight of words correctly spelled, he can scarcely go wrong when he comes to write them at examinations.

We doubt very much if raising the standard of admission will correct the evil, for we find altogether too many misspelled words in the papers of men who have *first-class* academic degrees.

THE ACTION OF OIL ON THE STOMACH.

at a time when it is the fashion among physicians to put drugs to the background and to lay great stress on dietetic and hygienic treatment of disease. Unfortunately, the bewildered practitioner who abandons the use of the many differences of opinion that exist as to their value and uses, finds himself on scarcely more ground when he takes up the dietetic treatment of disease than there are few diseases in which there is uniformity of opinion among the medical profession as to what foods are most proper. How often the text-books read "the most important principle in the treatment of this disease is the selection of a proper diet," and then go on to state that authorities are not agreed as to the kind of food that such patients should receive, recommending a proteid and some a carbohydrate diet.

How far these statements apply with greater force to diseases of the stomach than to those of the intestines is in question. In gastric disorders. The cause of these disorders, we believe, lies in the fact that until very recently very little was positively known regarding the effect of various foods upon the gastric functions, and consequently the hypotheses proposed were based upon purely empirical grounds. At the present time a great deal of attention is being paid by physiologists and workers to the subject of gastric digestion, and valuable information is being published. Notable among the contributions is the recent report of Cowie and his associates published in the *Archives of Internal Medicine*, Jan., 1900, regarding the action of oil on the gastric acidity. In as much as the experiments were made on human beings instead of on lower animals, they are of the greatest practical value to the clinician. Without entering into details as to the methods employed in carrying out these experiments, it is sufficient to say that every care was taken to eliminate chance and personal equation of the investigator, and the number of subjects employed was large enough to enable positive deductions to be made.

The principal facts demonstrated by these experiments are: that olive oil and cotton seed oil, when given in connection with a usual test breakfast, decrease the gastric acidity at the end of the hour and retard the evacuation of the stomach. The height of digestion is delayed when oil is given before or after the meal.

3. The height of secretion is lowered when oil precedes the meal, unchanged when oil follows the meal.

4. The action of oil on the gastric functions is only a temporary one. It has no effect on subsequent meals unaccompanied by oil.

5. Oil lowers the gastric secretion both by central inhibitory stimulation and by mechanically covering the mucous membrane of the stomach and coating the food particles.

Now that the effect of oil on the gastric functions has once been established by exact and exhaustive tests on the human being, it is a comparatively easy matter to determine the diseases of the stomach in which oil could be administered with benefit and those in which its use would be harmful.

The administration of oil in hyperchlorhydria and hypermotility would be at once suggested by its inhibitory effect on the secretory and motor functions of the stomach. In hyperchlorhydria it should be given before the meal, in hypermotility it may be given either before, during, or after the meal.

In cases with diminished acidity, such as hypochlorhydria and gastric catarrh, oil should be given after the meal or omitted altogether from the diet. In gastric stasis or persistent slow evacuation, oil should be interdicted for obvious reasons. We cannot close this brief resumé of the data furnished by Cowie and Munson without a word of commendation to these observers for their practical and praiseworthy efforts to establish the dietetics of gastric diseases on a rational and scientific basis. When the action of all food stuffs, as well as of drugs, have been determined by similar experiments, we will be in a position to prescribe diets for patients suffering from gastric disorders with much greater confidence and satisfaction than at the present time.

"I have caused the almost instant revival of a babe in pneumonia in midwinter by throwing wide open the windows in the stived den in which it was being smothered, though the home was of the palatial order. It is usually in such a close room that the oxygen treatment is employed, a treatment which I have never felt moved to use, feeling no occasion for such artifice, since the fresh cold air supplied oxygen in just the right dilution for the best effects."Dr. Charles E. Page, *Medical Record*.

GLEANINGS

SERUM TREATMENT OF CEREBRO-SPINAL FEVER.—Flexner and Jobling have presented an extended report on 47 cases of cerebro-spinal fever treated with the antiserum, of which 34 recovered and 13 died, the mortality being 27.6%. Of the fatal cases, 4 were of the fulminant type or so far advanced when coming under treatment as to make them worthless in framing statistics. Excluding these, the mortality was but 20.1%. This tabulation takes the cases without respect to their duration at the time the treatment was begun, which is manifestly a severe test. Of cases injected within the first three days of the disease exclusive of the fulminant type, the mortality was but 11.1%.

The value of statistics of cure of cerebro-spinal fever must take the general epidemic mortality into account. 18 cases occurred at Castalia, of which 12 died and 6 recovered. Of those patients who recovered, 3 were injected with serum, and no patient receiving the serum died. In Akron, there were 20 cases, of which 9 were not treated with the serum and 8 died. The remaining 11 were treated with the antiserum; 3 died and 8 recovered. The 3 fatal cases included 2 of the fulminating variety.

The authors further discuss the value of the antiserum and are very modest in their conclusions or estimates. They close their paper as follows: "No one could be less convinced of the final fact of its value than we are. On the other hand, we believe that the data at hand warrant a wider trial of the antiserum, particularly as no other and better means of combatting the disease is available. We think, however, it is unjustifiable to employ the serum indiscriminately, and without proper clinical and bacteriological controls. We shall be able, at the Rockefeller Institute, to supply a moderate amount of the anti-meningitis serum for use under conditions of control which we shall prescribe."—*Journal of Experimental Medicine*, January 1, 1908.

THE PULSE AND BLOOD PRESSURE CHANGES IN AORTIC INSUFFICIENCY.—As the result of an extended experimental and clinical investigation, Dr. H. E. Stewart draws the following conclusions:

1. The work of Henderson is confirmed in that the cardiac systole is not diphasic but triphasic, and consists of systole, the period of ventricular discharge; diastole, the period of ventricular relaxation and filling; diastasis, the period of rest.
2. The effect of the production of aortic insufficiency in the dog is to increase the amount of systolic output by only a fraction of a cubic centimeter of blood.
3. The amount of blood which regurgitates is negligible.
4. The transmission of pressure to the ventricle increases the ventricular tonus.
5. It also produces a reflex inhibition of the vaso-motor center.
6. The fall of pressure in aortic insufficiency is due to the diminished

peripheral resistance thus induced, and is not caused by loss of blood from regurgitation.

7. The increase of pulse pressure—the difference between maximum and minimum pressure—is due to a lowering of the diastolic pressure. There is no increase in the systolic pressure.

8. The main fall in pressure is systolic in time and is due to an increased blood flow through the capillaries.

9. So long as the tonus of the ventricle is maintained, a slowing of the heart rate does not favor regurgitation.—*The Archives of Internal Medicine*, January 15, 1908.

VARIATIONS IN THE AMOUNT OF ALBUMIN IN THE BLOOD AND THEIR VALUE IN THE DIAGNOSIS OF CARDIAC AND RENAL DISEASE.—Chiray (French Congress of Internal Medicine, 1907) says that the amount of albumin in the blood serum can be determined by a very simple method which is at the command of every practitioner. A wet cup with a scarified surface is placed upon a region which is free from œdema, and the serum is allowed to separate from the clot. The serum can be sent to a pharmacist, if the doctor does not wish to determine the amount of albumin in it himself. It is easier to measure the amount of serum albumin in the serum than to count the number of blood-cells.

The amount of serum albumin teaches important diagnostic facts. Since the work of Bequerel and Rodier, of Strauss, Achard and Loaper, we know that the amount of serum albumin in the blood is markedly diminished in certain patients with albuminuria. Chiray showed that in all cases of nephritis, no matter what the lesion in the kidney may be, and no matter what the cause of disease may be, the amount of serum albumin becomes diminished and that the diminution becomes more marked when there are extensive œdemas or uremic symptoms. When the patient improves, the diminution in albumin is not so marked, but it never disappears.

In patients with heart disease which is not well compensated a reverse state of affairs is found. The amount of albumin in the blood serum is increased, and this increase becomes more marked the greater the œdemas and diminishes when the œdemas are absent, but the increase never disappears, although it may be temporarily masked when the cardiac œdemas disappear under the influence of energetic treatment.

The most interesting point in the investigations of Chiray was that the author found that when renal symptoms appeared in patients with chronic heart disease there was a sudden diminution of albumin in the blood, while in patients with Bright's disease an attack of heart failure was accompanied by a sudden increase of albumin in the blood. He thinks, therefore, that in complicated cases of heart and kidney disease we are enabled by testing the albumin of the blood to determine which of the two conditions is primary, and thus to institute the proper treatment.—*La Tribune Medicale*, Jan., 1908.

THE TREATMENT OF GONORRHOEA.—The *Scottish Medical and Surgical Journal* contains a useful paper on the treatment of gonorrhœa by irrigation, from the pen of Dr. J. S. Purdy, who has made some interesting experiments in order to demonstrate that ordinary urethral injections do not penetrate beyond the membranous urethra. With a four-drachm glass

ected into the urethra of a cadaver a solution of methylene and that staining occurred as far as the termination of the portion, but no further. On using the douche tin an elevation of one-half feet was sufficient to stain the prostatic urethra, but for intravesical irrigation. On the living subject an elevation of less than five and one-half feet was necessary to reach the tip of a catheter. For intravesical irrigation it is better to use a syringe, although the resistance may be overcome by using a column of fluid sufficiently high, it is not always advisable to do so, especially in acute cases. Dr. Purdy has previously published his experience in the treatment of gonorrhœa with the new organic compound of silver, prepared at the London Lock Hospital. This body has the advantage of being stable even in strong solutions. After first washing out the urethra with a 5 per cent. solution, which the patient keeps in the urethra for at least five minutes. In from four to ten days the discharge ceases. On the cessation of the discharge he uses a hypodermic injection, a solution of sulphate of zinc, one grain to the ounce, which is held in the urethra for half a minute. In some cases cure is effected within 14 days. In posterior urethritis Dr. Purdy has obtained good results from deep instillations of silver nitrate, and in some cases he finds this method necessary, but he considers that no method gives so uniformly satisfactory results as urethral and intravesical irrigation. He uses a double-channel nozzle made of celluloid or metal, consisting of two concentrically arranged tubes so as to allow the fluid to flow through the inner tube and to return by the outer. An ordinary burette clip is used to control the stream. Dr. Purdy's experience of the urethroscope is also valuable. In some cases the disease was even aggravated by its use. Care and skilful manipulation are required in order to use this instrument to the benefit.—*Med. Review of Reviews*, Jan., 1908

SYMPTOMS OF ARTERIOSCLEROSIS.—Josué (*Presse Medicale*, Paris, October 1907), presents a list of early signs of arteriosclerosis which allow of early detection in its incipency, while there is still a prospect of arresting the progress by appropriate measures. The symptoms are the result of local and variable disturbances in the local circulation. The arteries become rigid, elastic, contracting less readily, and the course of the blood is less well regulated. In some cases these symptoms appear only after a long time, but they may be general disturbances; the patient tires more easily, becomes irritable and depressed, with intolerance occasionally of alcohol or tobacco. Motor, nervous, respiratory, ocular or auditory disturbances are common, with epistaxis, œdema, arterial hypertension or heart failure. Among the nervous troubles may be a lessened capacity for physical and mental work, disinclination to commence a new task, loss of memory or a slight, transient difficulty in speech. Sometimes display unusual irritability or somnolency. Headache is an early sign, especially morning heaviness and oppression becoming actual headache in the course of the day, sometimes severe. The pain is generally located high on both sides. The headache comes on or is aggravated by mental or physical effort or by alcohol. The mere fact of concentrating the attention is sometimes sufficient to arouse the pain. He calls this symptom "the sign of the

painful thought." Continuous headache persisting after correction of refraction errors is probably due to atheroma or arteriosclerosis. The patients sometimes complain also of a transient tingling or heaviness in the arms or legs. Intense and persisting neuralgia is not infrequent, intercostal, trigeminal or in the legs, but the pain does not follow the course of the nerves, and there are occasional intermissions. Sometimes the pain alternates with tingling or itching in the limbs; it is not modified by pressure, and there are no other sensory disturbances in the regions involved. Vertigo is one of the warning symptoms of arteriosclerosis. Sometimes the patient feels dizzy when he stands up after reclining, or there may be a vague impression that the floor is not solid. Sometimes he feels as if something were moving in his brain. All other affections that might induce vertigo must, of course, be excluded. The patient generally finds it impossible to go to sleep, and after tossing restlessly for hours sleeps tardily and briefly, his slumber being restless and interrupted by subdelirium. When neurasthenia is observed in a previously healthy person between 45 and 50 years old, and no other cause can be assigned for it, incipient arteriosclerosis should be suspected. This tardy neurasthenia frequently accompanies cancer, tuberculosis, diabetes and incipient general paralysis, as well as incipient arteriosclerosis. The neurasthenia is generally of a mild form, and the arteriosclerotic lesions are more functional than organic in this early stage. Another early sign of arteriosclerosis is the exceptionally slow return to normal after a traumatism. Spasmodic phenomena in the arteries of the retina are also among the signs of incipient arteriosclerosis, as also thrombosis of the central artery, atrophy of the macula and central scotoma or circumscribed trophy of the optic nerve. Slight dyspnoea on effort is an important sign, as also spasmodic severe dyspnoea, which generally follows errors in diet. As a rule, such patients have emphysema. Epistaxis is another important early sign; it is best not to check it unless the hæmorrhage is excessive, as it is a valuable safety valve for high arterial tension. Slight œdema of the legs, especially toward evening, is another sign. The blood pressure is not always high during the early stages of arteriosclerosis, but when it is, and the high pressure persists, arteriosclerosis and atheroma should be surmised, especially when combined with some of the other signs mentioned above. The presence of kidney disease does not testify against arteriosclerosis, and it may even be the cause of the latter. In one of his cases a young woman had a mild kidney involvement during an attack of scarlet fever. There was a slight albuminuria, a little œdema of the eyelids, and a gallop rhythm. These symptoms lasted only a week, but the radial arteries soon became hard to the touch, and can now be rolled under the finger. There is no other sign of atheroma, but it is unquestionable that the changes in the kidney have left their impress on the arterial system.—*Journal of the American Medical Association*, December 7, 1907.

THE PREVENTION OF SYPHILIS.—Metschnikoff and Roux recommend calomel ointment composed of 10 grammes of calomel and 30 grammes of lanolin as a local application after coitus for the prevention of syphilis. They experimented on animals (monkeys) and were able to prevent the development of chancre by the application of this ointment. It was objected, however, that this method would not be efficient in man. In

M. Paul Maisonneuve, at that time a medical student in himself for the purposes of experimentation. He was careful to exclude the presence of acquired or hereditary syphilis. In 1906, Metschnikoff himself inoculated him with syphilis from Messrs. Roux, Queyrat, Sabouraud and Salmon. With Metschnikoff made three scarifications upon the balanopreputial space of Maisonneuve and inoculated these scarifications with a virus from one patient. He then made scarifications on the other side and inoculated them with virus from another patient. The genital organ of M. Maisonneuve was rubbed for several days with a calomel ointment. Two monkeys were then inoculated with the virus and two others were inoculated and treated with the ointment. In one of the latter the ointment failed to do its work, a chancre developed. In the other monkey no chancre developed. Two control monkeys that had not been treated with the ointment and early in the experiment, the other developed a chancre. Maisonneuve escaped infection with syphilis, although some herpetic eruptions appeared upon his prepuce. The method of Metschnikoff has been met with opposition especially on the part of Professor Neisser, who thought he did not succeed in preventing syphilis with the calomel ointment. After applying the ointment one hour after inoculation, a chancre usually developed according to Neisser's experience. In a monograph on the subject of the prophylaxis of syphilis, Metschnikoff's method especially for physicians, demands that persons come into contact more or less frequently with syphilitic persons should use the calomel ointment as soon as they are suspected of inoculation. The ointment can also be used immediately after inoculation. The calomel ointment is very effective. *La Tribune Medicale.*

HEART COMPLICATIONS OF SCARLET FEVER.—First, as soon as the diagnosis is made these patients should be put to bed for at least a week, no matter how slight the affection may be, as we often have serious complications with the mildest attacks. Late nephritis is not infrequently met with and one of the prime etiological factors of heart lesions. The diet should be strictly liquid—milk to be preferred, and broths are quite permissible. At all events the patient should drink plenty of water.

Medicines should not be used for two reasons: (1) because they are not needed in the mild cases; (2) because they are too depressing in the severe cases.

Depend upon the cold sponge, the pack, or the evaporation of water, but do not think it wise to use the tub bath, because of the strain connected with its application.

Special attention should be given to oral sepsis, for not only is it a generator of toxins, but also the important factor in proctocolitis, and otitis media that we so frequently see, and which may endanger the heart.

When the gargles and sprays generally used, these cases should be treated by nasal irrigation (best with a fountain bag) of normal

salt solution, two-per-cent boric acid solution, or bichloride of mercury 1: 10,000 to 1:6000—the child lying on his abdomen, the mouth being kept open to prevent swallowing.

Fifth, the skin should be kept soft and active by the frequent use of baths and the application of lard or lanolin containing from one to two per cent carbolic acid, which destroys the scales and relieves the itching so frequently present.

Sixth, the bowels should be watched closely throughout the disease, calomel being administered at the beginning and at intervals throughout the attack. Salines are of value, and one should not forget the importance of daily colonic flushings with normal salt solution.

Seventh, it is the custom of the author to use mild non-irritating diuretics throughout the disease, such as spirits of nitrous ether, or liquor ammonii acetatis, and in the ten cases he has treated during the recent epidemic he has not even found a trace of albumen, with careful watching.

Eighth, when vomiting is persistent all medication should be discontinued for a short period, excepting perhaps the addition of lime-water to the milk. If the angina is not too severe, lavage may be used if necessary.

Ninth, the treatment of the different heart lesions varies so little that the author takes them up collectively:

(a) Absolute rest upon the back, the pillow being removed. (b) The patient should be in a large, well-ventilated room, care being taken to avoid a draught. (c) A good nurse is indispensable, as it is impossible to care for these cases in any other way. (d) The ideal diet should be rich in albuminous foods, but here we are handicapped by the danger of acute nephritis; however, we should feed them as well as conditions will permit. (e) The eliminative treatment should be the same as given under prevention, unless the cases are very severe, when it is wise to dispense even with the bath and flushing. (f) In no case should the patient be nervous or restless; this should be controlled by the use of morphine in small doses, which is stimulating to the heart as well. Should above symptoms be extreme, large doses are indicated. (h) The proper use of stimulants requires frequent visits by the physician and the constant watching of a capable, trained nurse, as changes are sudden and many times without warning. (i) Strychnia is no doubt one of the best stimulants we have for these conditions, and should be given in every case, not only for its stimulating effect but for its generative action on the heart muscle and nerves as well. (j) Alcoholic stimulants (especially brandy) are invaluable, and should be given in from half-drachm to half-ounce doses, depending on the age as well as on the condition of the patient. (k) As conditions are so variable and changes so sudden in these cases, we must rely to some extent upon the nurse, as it is just as important not to overstimulate the heart as it is not to give enough. Camphor is one of the best stimulants we have at our command in these cases, which should be given in sterile olive oil, hypodermically, in from one-half to one-grain doses. The author has observed the heart action improve by its use when other stimulants did not seem to have any effect whatever. The important features about its being given with oil hypodermically are its slow absorption, continued action, at the same time allaying the nervous symptoms. The nurse should always have a hypo ready for immediate

italis should not be used, especially when we have marked contraction of the arterioles increases the tension and action. However, it may be of value when we have a rapid extremely low tension; the best preparation being fat-free freshly made infusion. (*m*) The use of the ice-bag should be resorted to where we have a rapid, irregular action. (*n*) Our guide as to the time for the patient to get up should be the pulse and the condition of the heart (one or more be present). The murmur should have disappeared and should not show more than a very slight increase from this exertion. If the pulse show a distinct rise it is indicative that the heart is unable yet to withstand the extra strain. (*o*) The anemia should be treated by proper treatment with the peptonates of iron and arsenic.—*Obstetrics*, Oct., 1907.

ITS CAUSATION AND CONTROL.—In the course of an article contributed to the *British Medical Journal* of October 19, 1907, Branthwaite says that it cannot be stated too definitely that all methods which incite or strengthen moral resolution are useful only in those cases in which the patient whose mental condition approaches the normal. The result of such methods will always be in inverse proportion to the amount of existing defect. If an inebriate possesses a fairly normal sense, some measure of control over impulses, and moderate power of judgment, these attributes, or the exercise of them, may be strengthened by various influences; but if such qualities are very weak or badly warped, the outlook is bad. The influences within this category are practically those which substitute for the normal temporary dependence upon a course of life ordained by nature. In instances the writer has known a few inebriates who have overcome drunken habits and have apparently regained complete control over themselves as the result of religious enthusiasm. He has also known persons who have been able to attain the same end through the mere exercise of strong individuality, in whom they had confidence, and in whose direction they were willing to order their lives. There are also cases apparently cured by hypnotic suggestion, and a fair number recovered through the agency of faith cures, quack medicine, or other measures closely approaching humbug. All these inebriates have been known to produce good results, dependence and trust have been rarely supplanted free agency, until some amount of self-control has been regained, and the patient finds himself able to stand

an imperfect recognition of the mental aspect of habitual drunkenness. Much more reliance has been placed upon the value of the treatment warranted by results. In Branthwaite's opinion drugs are valuable—indeed, necessary—for the relief of unpleasant symptoms during the transition from long-continued drunkenness to enforced sobriety, to avoid many complications which may occur during this "locking off." They are also necessary when acute symptoms have not yet disappeared, as aids to the removal of temporary suffering from excessive indulgence, and to help toward recovery of physical health. Any person who attempts to treat habitual drunkenness without the use of drugs for these two purposes is neglecting

potent influences for good. Further than this the author is not prepared to accord any value to the administration of drugs, and his reiterated belief in the mental origin of drunkenness renders it unnecessary for him to state an absolute unbelief in the possibility of the existence of a specific.

Some mention should be made of hygienic measures as essential factors in the medical treatment of habitual drunkards after the acute stages are passed. Regular life, good food, work, and amusement, are all necessary—in short, all the same principles must be adopted which are found desirable in the treatment of the insane.

The author sees no reason to object to the exercise of every possible influence which might conceivably produce good results before physical control is resorted to; the attempt to avoid restraint is both natural and desirable. Experience shows, however, that resort to physical control is too often delayed until it is useless to apply it, too much valuable time being wasted by mild measures, notwithstanding proof of worthlessness and repeated failure. By all means let every chance be given of possible benefit by other methods, but when failure results no further delay should be permissible in the best interest of the patient. Control should be applied before the original defect is increased by added degeneracy. Some persons are sufficiently normal to be amenable to moral influences, others are not; when the latter require to be dealt with, no efforts will have a reasonable chance of success in the absence of compulsory control. The first principle in the treatment of habitual drunkenness is the removal of alcohol. If by the exercise of ordinary home influence abstinence can be secured, well and good: medical treatment and moral influences can be applied with some hope of success; but when a patient cannot be so restrained, all else is worthless. All inebriates must require control in some form or other, because they are admittedly incapable of self-control, otherwise they would not merit their designation. The amount and character of control necessary for each individual depend entirely upon his mental state; if he is too bad for effective home control, something more powerful should be applicable to his needs.

It has been argued that, if sufficient defect exists to prevent good result from mild measures, control and enforced abstinence are not likely to be of any avail. It is only necessary to watch some cases in reformatories to see how wide from the mark is this statement, and what advantage might result, even to some of the worst, had earlier control been applied. Moreover, the author has known very many persons admitted to retreats, apparently hopeless, who have left, after some months' detention, free from all signs of abnormality. The subsequent history of such cases, after ten to fifteen years has elapsed, justifies a hope of good results from enforced control, even in some apparently hopeless cases, certainly in many which have been unaffected by milder measures.

With reference to treatment and control, the main points the author wants to emphasize are: (1) The necessity for greater attention to neurotic and psychopathic indication; and (2) the necessity for an earlier recognition of these conditions, with a view to the timely exercise of effective control in cases which cannot possibly be benefited by milder measures.—*Therap. Gazette*, Feb., 1908.

OPERATION IN BRAIN TUMORS.—While neurologists and sur-
 ally advise trephining for relief of tension in cases of brain
 can neither be localized or removed, their teachings have
 the practical recognition, the subject merits. Dr. Campbell
British Medical Journal, December 21, 1907, reports two cases
 or in which the palliative trephining was performed. In one,
 very prospect of early onset of complete blindness. The open-
 ings were made over the supposed site of the tumor. While no
 discovered, there was abundant evidence of high intracranial
 attempt was made to search for the tumor by probing. The
 followed by rapid subsidence of the optic neuritis, and the
 ved to such an extent that the various symptoms gave scarce-
 e whatever. Dr. Thomson refers to another case,—one of tu-
 cerebellum in a child,—in which a therapeutic trephining gave
 ble results. If, as those who have had the most experience be-
 lying will give patients with brain tumor not only an increased
 life, but add greatly to the comfort of that remaining, any
 inst it as an example of meddlesome surgery, should disap-
 Personally, we feel that it is to be commended for the con-
 the profession, as we have advised it consistently for the last

OPERATIVE TREATMENT OF TRAUMATIC MENINGITIS.—Arthur Schles-
Berliner Klinische Wochenschrift, November 25, 1907. The
 his thesis on the report of a case of traumatic meningitis
 oped within a few days after a compound fracture of the skull.
 is could be well localized to the arm area of the cortex, as
 symptoms of Jacksonian epilepsy. Owing to progression of
 a, a craniotomy over this area was performed two weeks after
 purulent meningitis of a hand's breadth diameter was found
 dura; the overlying cranium to this extent was removed until
 tissue was noted; the dura was opened by a crucial incision
 arachnoidal space was drained. Relief of symptoms was
 after a plastic operation for purposes of covering the defect,
 was discharged cured. The author outlines three operative
 ch have been employed in order to combat this malady: 1.
 method; this consists in merely exposing the dura without
 2. Jensen's method; the dura is split but no efforts are made
 confines of the pus area. 3. The author's method. Schles-
 his method to be the only rational procedure.—*Amer. Jour.*

TREATMENT OF, WITH NAPHTHOL. In the *Jour. de Med. de Paris*
 1907, the following treatment is outlined for acne: A 10%
 naphthol is applied to the affected area which is kept on for
 one hour, when it is removed, and is followed with soap and
 water. Within 24 hours desquamation is usually noticed. The
 ointment is then applied, as previously stated. This is continued
 to two weeks when exfoliation is usually complete. No scar-
 Dermatitis can be controlled with a mild soothing ointment.
 In cases 10% of camphor can be added, and then the ointment

should be applied for 15 minutes. Another ointment recommended for the treatment of acne is as follows: Resorcin 2.5 parts, zinc oxide, 5 parts, starch 5 parts, petrolatum, 12.5 parts. After applying, this ungent is permitted to remain for 24 hours and is then removed with oil.

RALPH BERNSTEIN.

ERYTHEMATOUS ECZEMA. TREATMENT OF.—J. V. Shoemaker, in the *Nashville Jour. Med. and Surg.*, recommends the following treatment for the erythematous form of eczema: Patient is put at absolute rest in bed, the diet being restricted to milk, 2 grains of calomel are given in tenth gr. doses half hourly, which is followed by one and one-half oz. of magnesium sulphate. The following lotion to control the itching is sopped on with a sponge: Creosote, M. 10; mag. carb., dr. $\frac{1}{2}$; zinc carb., ppt., drs. 6; glycerine drs. 1; lime water drs. 4; aqua hamamelis q. s. ad. oz. 1.

RALPH BERNSTEIN.

INFANTILE ERYTHEMA. TREATMENT OF.—Pelin, in the *Brit. Jour. of Child. Dis.*, contends that this form of erythema is usually due to the acidity of the urine and stools coming in contact with the affected parts. Pelin's first procedure is to produce a neutral or alkaline evacuation. To produce this condition the writer considers the alkaline mineral waters or sodium bi-carbonate much superior to lime water to produce alkalinity, he further advises the regulation of the feeding and the administration of intestinal antiseptics. Great care must be taken that the buttocks are not washed too often; when washing is necessary sterilized water should be used, containing a desert spoonful of sodium bi-carbonate to the pint. Oxide of zinc combined with sterilized talc. is a useful dusting powder. If there is much erosion, caron oil (lime water and olive oil). Perlin decries the use of vaselin or lanolin, as he can see no advantage in their use. He further advises against the use of starch dusting powders, as they produce fermentation.

RALPH BERNSTEIN.

IVY POISONING. LOCAL TREATMENT OF WITH SULPHUR.—C. G. Amende, in the *Med. Record*, advises the use of sulphur in the local treatment of ivy poisoning, contending that he has been very successful in the treatment of this condition. His method is as follows: Crude sulphur is mixed with water and a small portion of glycerine which is applied to the affected portions, two to three times daily. He also advises the sulphur being mixed with lard and thus applied.

RALPH BERNSTEIN.

THE EYES AND EYESIGHT OF BIRDS, WITH ESPECIAL REFERENCE TO THE APPEARANCE OF THE FUNDUS OCULI.—The author has made a very valuable contribution to the comparative anatomy of the eye. He justifies his work by the light that is thrown on the anatomy and physiology of the human eye, by the study of the eyes of the lower animals, and especially of the bird, whose eyes exhibit the highest development of the visual sense. The third eye-lid, seen in the retrograde form in man, finds its highest development in birds. It serves to scrape the cornea and in connection with the gland of Hardee, which is placed beneath the membrane and functions with it, to cleanse and protect the cornea. It also screens

light. The anterior chamber is deep and the cornea more convex than in the human eye and this shape is continued into the sclera. The corneal walls are much strengthened by the overlapping horny plates or segments of the sclera and by a cup of hyaline cartilage, which covers the posterior half of the eye. In the majority of birds, the cornea is of a most remarkable mobility. In some nocturnal birds, the pupil may be contracted to a vertical slit, probably to admit light and accommodate for near.

The ciliary body is an elaborate organ, the canal of Schlemm is not the only source of fluids and of the nutritive supply of the lens. While some changes in the shape of the lens may be accomplished as in the human eye, yet the principal change in accommodation is produced by the contraction of a ring, that encircles the bird's eye about the equator, known as the ciliary muscle of Crampton. This ring contracts, the unyielding globe direct the pressure forward, the ciliary muscles relaxes, the increased internal pressure pushes the lens into the anterior chamber. At the same time the pecten fills with blood and swells and the lens becomes more convex. For distant vision the process is reversed. The process may be very rapid. The crystalline lens is globular and capable of great variation in form. The most peculiar organ in the whole eye of birds is in the pecten. This pigmented, irregular, fan-shaped body extends from the optic disc of every bird into the vitreous body to the posterior surface of the lens, and is composed of many fine, parallel trunks, about which are arranged smaller vessels with cellular walls bound together loosely by connective tissue and covered by a thin, thin, homogeneous, pigmented membrane. It carries the blood to the retina and its erectile nature enables it to assist in accommodation, as already explained.

The artery of foetal life is probably a vestigial pecten. Each eye has one or more macular regions, each with its fovea thus providing complete binocular vision in each eye of hawks and other birds of prey and in insectivorous birds. This explains the wonderful range of vision of birds like the eagle, hawk and vulture. The refraction of the eye is usually hypermetropic, but the domesticated species tend to be myopic, astigmatic or both, and to present evidences of intra-ocular disease.—Casey A. Wood, M. D., Chicago. *Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

PERCEPTION OF SIGHT AND COLOR.—After discussing retinal anatomy and physiology and general nervous phenomena, the writer calls attention to the two varieties of nerve end organs in the eye, the rods and cones. The fact that the presence of these two types would lead us to expect at least two distinct sensations. Such seems to be true in the case of man. The rods seem to produce luminous sensation and the cones visual sensation. The character of each is discussed and the role of the purple cone and its chemical decomposition and renewal are described. The development of electro-motive force and its relation to the decomposition of purple and its action in stimulating the rod function is clearly explained. Luminous sensation is clearly the function of the rods and their

contained purple pigment, for it is absent where the rods are absent. This is perception of light, but not of form. Stimulation of the rods by light of any color whatever gives rise to the sensation of faint white or gray. Their independent action never gives rise to color sensation. The cones, on the other hand, contain no demonstrable light sensitive pigment and are not equipped for rapid recuperation of their functioning power. Their activity is aroused by greater stimulation than is necessary for rods. Clear appreciation of form is from this activity of the cones under greater light stimulation. The coincident activity of both rods and cones gives color phenomena and such phenomena are absent if either rods or cones are absent or defective.—*A. E. Irschhoff, M. D., Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

WHAT IS THE COURSE OF UNTREATED CASES HAVING FEBRILE PUERPERAL PERIOD?—Mermann (Manheim) endeavors to answer this interesting question, and says for some years past there have appeared reports of cases purporting to illustrate the beneficial results of the various forms of treatment applied. These reports, have ever been deficient, because we could not compare the results of such treatment with cases entirely untreated by therapeutic measures. In 1886 Crede reported a series of about 1,600 obstetric cases, treated entirely on the expectant plan, and had a mortality of 0.4% from infection among a general mortality of 0.9%. Our author now reports 9,000 cases occurring since 1887 and managed identically from the same point of view as regards prophylaxis and therapeutic treatment. It will probably cause some surprise to read that at this clinic after the birth of the placenta they do not enter the uterus when large portions of the chorion or almost the whole of it is absent, provided these do not cause hemorrhage; also that they do not use any intrauterine or vaginal douches after the birth of putrid fetuses, or after prolonged intrauterine manipulations. Crede has shown in a series of 108 cases of putrid fetus, that these cases just as little imperil as do the birth of living children, whereas manual cleaning of the uterus and other manipulations as formerly employed, increased the mortality to 60%. The author says that the internal examination is not necessary for the diagnosis of most of the lesions due to infection. He says that the examination made on the day of dismissal from the hospital, usually the tenth, is often productive of harm. At this clinic, febrile puerpera, are subjected to no local manipulations and receive little or no therapeutic treatment. The main reliance is upon rest, and occasionally digitalis in small doses is administered when there is a disproportion between pulse and temperature indicating cardiac weakness. Statistics arranged from several view points are presented. Lack of space prevents even an excerpt of them. We may say, however, that the death rate from sepsis amounted to seven, which equals eight one hundredths of one per cent.; the number of cases having any elevation of temperature at all amounted to 18.78% in 3% of these the cause was extragenital; in over half of all febrile cases and in 9.6% of all the births, the rise of temperature occurred but once; and in only 0.33% did the illness become serious.—*Arch. f. Gyn.* 82, 28.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

HOMEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

doing more to-day to weaken the American heart, and not American's but all other nationalities as well, than any other is no drug in the entire materia medica that so certainly elasticity of muscle fibre as Tabacum. Americans, Englishmen and Germans, will all stand the stress and strain of the business life, if they will only curtail the excessive use of nicotine. A physician informs a patient that he is using too much tobacco is affecting his heart, the advice is apt to fall on stony soil. The patient sees the physician, himself, smoking and chewing. The doctor has much to do with it, and the force of example in this respect is not to be despised.

To advise a business man, on the verge of nervous prostration, to slacken his pace, is all very well; but it is much better, and more effective, if the advice be specific, and the danger of not following it be made plain. The sermon on the strenuous life has been preached for years, and has been preached in vain; the advice was not taken then, and similar advice will not be taken now. The New Year is the time to make resolutions, and it appears to be equally as good a time to break them. An individual may change his habits when compelled to, but the individual as a whole, will go on at the old rate, irrespective of consequences. *Medical Advance.*

THE SPOT—MATERIA MEDICA.—In the last issue of the *Observer* we have seen a classification of State examining boards putting in the low class those that do not examine in the application of remedies to the diseases as, for instance, the New York board. They have eliminated the curriculum Materia Medica and Therapeutics. The apology for this seems to be rendered necessary by the adoption of the allopathic system if we are to look for harmony in its action." Shades of Hahnemann, Dunham, Hempel, and all other elaborators of the allopathic system in the United States, think of it. For the sake of a false harmony with those who have sought our extermination by war, we are to be exterminated by swallowing us and trying to kill us. We are to be exterminated by emasculation justified by the loss of her sailing-gear, our ark is to be a derelict, rudderless, and her sky to have its polestar blotted out. Are we to do homage of eunuchs in the temple of Aesculapius?

We have always contended that what makes a physician is his skill in prescribing. Heretofore, it has been the highest compliment to a homœopathic physician to have it said of him, "he is a good prescriber." Of course, he may be that hereafter; he will have to be, to deserve to be called a homœopathist. But the people are to have it impressed upon them that there is nothing worth while in medicine, and that by legal enactment.

The trustees of our college can now dismiss the teachers and professors of *materia medica*, pharmacology and therapeutics, as the students may pass and become legally qualified doctors without ever reading, hearing or knowing a word upon these subjects. As soon cut anatomy out of surgery, embryology and mechanics out of obstetrics, chemistry out of hygiene, bacteriology out of etiology, as *materia medica* out of medicine. Of course, it is pleasant for all mankind to dwell in harmony, but differences will spring up, they always have, and the last estate rising out of the new order may be worse than the first.—*The University Homœopathic Observer*.

MENINGITIS.—By Anna D. Varner, M. D., Wilksburg, Pa. Case 4.—This case was unusual, not in its manifestations, but because the patient recovered. This little fellow, aged 16 months, had three attacks of pneumonia in one winter. On the second day of the third attack, March 16, he developed secondary lepto-meningitis. His condition was serious and distressing, having in addition to the cardinal symptoms of meningitis (excepting convulsions) the rapid respirations and cough of pneumonia and a profuse exhaustive diarrhea. The chewing motion of the lips, strabismus, continual rolling of the head or retraction of the neck with the spine bent in a semi-circle backwards, shrill shrieks night and day, dry hot skin, embarrassed respirations, tremors, the bulging of his head in the occipital and temporal regions, form a picture which can never be effaced from the memory. Towards the end of the third week he lapsed into a profound stupor, his sightless eyes, wide open, set and staring.

From all we read in books this boy should have died. From all the consolation offered by professional friends he should have been an idiot, or blind, deaf, and dumb. However, after two days he awoke from the stupor and made a rapid uneventful recovery. To-day after five years he is as bright and healthy a boy as you could wish to see.

The remedies used were *helleborus*, *argentum nit.*, *cicuta* and *passiflora*, none of which made the least impression upon him. When he fell into a stupor, sulphur in a very high potency was administered. In just such conditions as this sulphur sets the processes of absorption at work and saves the patient.—*Medical and Surgical Reporter*.

HOW TO BLOW THE NOSE.—Frank B. Seitz, M. D., Buffalo, N. Y. I unhesitatingly state that not one person in a hundred knows how to, or does, blow the nose properly, and that if the nose were properly, freely, strongly blown and cleaned in the way nature provides, that that great bugbear catarrh would soon be a thing of the past. In fact, I will go further and state that not only would hearing be better preserved and improved, but the lung capacity enlarged with all that that implies.

me the proper procedure is to cover the hand with your either single or double ply according to the expected quantity. Say we are using the right hand (to begin right is a (y), place the thumb tightly against the side of the right nostril, forming a pocket just below and in front of the left take a very deep inspiration then blow the contents of both long, steady, uninterrupted stream through the left nostril, keeping the right tightly closed. Next close the left with the release the right by raising the thumb, take a deep breath as the lungs will hold—and here is where we will soon get tension of the smaller lung cells—then blow long strong, until almost all the air is exhausted from the lungs. A compel you to refill the lungs with renewed, revitalized and air. It is my humble opinion that a nose blowing "hour" the curriculum of every school, just as there are now a few exercise.—*Hom. E., E. and T. Jour.*

YM—A PROVING.—While attending Miss S. (a lady of mid-spring for influenza I was requested by her sister to give her it would prevent her taking the complaint. I gave her a zinum 30, with the result that she had a rise in temperature ic symptoms, but as I made no note of them at the time I e details.

her recovery asked me to give her some Influenzinum to h her (she lives in the country), as she was constantly nza and it always affected her badly. I warned her that h a susceptible person the medicine might cause some dis-ptoms. She replied that she did not mind that; anything er than influenza. I told her I could not guarantee that it ssful, as I had not yet had much experience of Influenzinum tic, but I thought it worth trying. She promised to try it ow the result.

er 7, 1907, I received from her this letter: "I think you ted to hear that I have just had a very successful inocula-za. I have not tried it since I left Hampstead, but as season is now beginning I thought I would protect my-ember 1st, therefore, I took five drops before breakfast. By begun to feel very 'all-overish,' and by 10 p. m. I knew that something. At midnight I was violently sick, and all that e symptoms of influenza upon me—extreme nausea, headache f the head, pain behind the eyes, great malaise in the pit , with irritability of all the mucous membrane from throat d increasing prostration; no rise of temperature. On the far too ill to get up, so stayed in bed for forty-eight hours. ry light food. After forty-eight hours the symptoms abated disappeared, though the squeamishness kept returning at our days. Now it has quite worn itself off. Will you very how long you think this inoculation holds good? I am ed to protect myself by further doses, as anything is better ing." I replied that I thought such a severe reaction ought for at least three months.—T. G. Stoneham, M. D., in *World*, Feb. 1, 1908.

CHOREA—ITS TREATMENT.—I believe that I have more frequently selected pulsatilla than any other one remedy for choreic patients. Under pulsatilla we find the general hypersensitiveness which many cases exhibit. Anemia and chloro-anemia are characteristic of it. It has the fugitive pains, the vascillating mind, the functional cardiac disorders which choreic-children manifest. Puberty with its awakenings and new sensations in hypersensitive boys and girls frequently calls for pulsatilla. The digestive symptoms of pulsatilla are distinctive and are frequently reproduced in choreic subjects.

Belladonna has mental excitement, with flushed face, staring eyes uncontrollable attacks of rage. The muscular picture is one of violence. Cerebral irritation stamps the whole aspect of the case. There is nothing about it that is mild. The patient frequently needs to be restrained to prevent either intention or accidental self injury.

Stramonium gives a similar picture to that presented by belladonna. Sudden onset following fright, evidences of fear, excessive and incessant movements, which are violent characterize stramonium. Delirium with efforts to escape from something or loquacity with boisterous laughter, alternating with hallucinations will suggest this remedy rather than belladonna.

Agaricus muscaris and its alkaloid are much more frequently indicated for reflex choreiform movements and habit spasms than for idiopathic chorea. It is characterized by spasmodic twitching of the muscles of the fingers and toes; the muscles of the face, the eyelids and the mouth. Muscular weakness is also a marked symptom.

Causticum has muscular weakness simulating paresis; the involvement of the speech muscles and of tongue are usually present. Weakness of memory, anxiety, melancholy and irritability also suggest causticum.

Actea racemosa presents the fugitive joint pains, especially of the small joints, and the endocarditis so frequently found in the rheumatic cases. Under this remedy also sleeplessness is apt to be marked; its use, if not given in too large doses, will relieve us of the necessity of giving narcotics for sleep.

Hyoscyamus and hysoscine should also be considered when insomnia is present. Mild delirium with silly actions and expressions belong also to this remedy.

Arsenicum, ferrum and phosphorus each covers a distinctive type of anemia and present well marked characteristic symptoms.

There are many other remedies which may be needed for individual cases, some of them perhaps more frequently than some of those which I have mentioned; it is, of course out of question to discuss them all.—*The Clinique.*

WHY SHOULD HOMŒOPATHY CONTINUE TO EXIST?—We would submit the answer, Because it has not fulfilled its mission; and until man and sect have fulfilled their mission, death is premature. Century-old traditions and prejudices have not yet been wholly eradicated from the minds of laity and profession. Homœopathy has yet much to disprove, to “live down.” It cannot merge the treasures of truth in its keeping with the medical wealth of the profession at large, until they are recognized as treasures. The truth it contains has not yet been universally acknowledged

ed its place in the armory of truths from which the medical draws its weapons for the age-long battle with disease.

its founder has not yet been given the honor he deserves as a critic, a thoughtful and independent reasoner, an original observable of initiative and untrammelled by tradition, a true benefactor-kind.

homœopathy remains at the opening of this new century, as it opening of its predecessor, the only rational method of applying (other pathogenetic influences) simply and *directly* to the *cure*

Homœopathy aims primarily at the cure of disease, and secondly at their palliation.

in our day, as in that of Samuel Hahnemann, there is no other law or rule by means of which one can positively predict the in which a newly discovered pathogenetic agent will prove *curative*.

there is no other existing law or rule that will enable one, with- mentation, to select the therapeutic agent (whether drug or that will prove *curatively* antagonistic to a newly discovered pathological condition.

as long ago, the unintelligent practice obtains, of the use of for fluxes; the use of laxatives and cathartics for torpidity; s for acidity; of anodynes for pain; and of hypnotics for in- shot gun" prescriptions (combination tablets are still used, in- mple, direct and uncomplicated treatment by the single remedy. it must be regretfully hinted that the use of combination not today absolutely unknown in the camps of homœopathy. ts are still used for excitement; stimulants are still used for s; palliatives are still used instead of curatives.

ard, Nature is still more or less rudely and unintelligently co- ead of being gently led, persuaded and co-operated with. While gs are true, homœopathy has still most cogent reasons for ex- she knows and can teach the path along which better treat- the ones above outlined can move to success; true, she herself to learn of the turnings of the path; much to learn of the that soothe and relax, that correct and upbuild; but this is a more for prolonging her existence until she has learned and ese lessons. While in pathology, diagnosis, surgery, hygiene, ydro- electro- mechano- and psycho-therapeutics, and dietetics, practice is today a united whole, and the homœopathist the peer his medical brethren in the knowledge and the utilization of most helpful things, in the science of drug pathogenesis and of drug therapeutics Homœopathy is still unique, as a logical, useful entity, representative of a great therapeutic truth. While thus unique, it must continue to stand. Its fall, its ceasing to be a world-misfortune, the failure, unfulfilled, of a mighty trust. have the answer to our third question. Homœopathy must con- ce, because she and she alone has in keeping precious truths rned by those who need them most.—*New England Medical Ga-*

SEPIA.—By A. Leight Monroe, M. D., Miami, Fla. Discussing the author's paper on Sepia, read before the World's Congress, at Chicago, in 1893, Dr. T. F. Allen said: "Sepia is of animal origin, but not a poison. The animal throws out the circular stream which forms an opaque mass in the water in order to hide from its enemies. But this is not a poison, it is pure and simple carbon, nothing in the world but coal; absolutely inert in its crude state. I cannot compare sepia with any animal poison, but I have confirmed sepia as a vegetable, and class it with other carbons, pure and simple carbons, which, by their trituration, develop different properties, this is something to think about in making comparisons."

The truth of the great Dr. Allen's observations is borne out in the close clinical relationship existing between sepia on the one hand and such carbons as *carbo vegetabilis*, graphites and petroleum on the other. But we shall also see that in many respects it nevertheless is its pathogenesis and clinical relationship shows many of the marks of the animal poison. Sepia is a ganglionic or vegetative centric, and hence we naturally expect it to prove a deep and long acting remedy, hence one exerting a profound effect upon nutrition. As like Apis and Lachesis it is an animal poison we expect it to produce changes in the blood, affecting not only its chemical character, but also its fluidity and nutritive qualities. In all these respects we are not disappointed.

With altered blood chemistry we must expect appreciative effects to be exerted upon the nerve centers.

In this also we are not disappointed, for as a result of its action we find a condition of nervous excitement accompanied by weakness, a condition of irritable weakness displaying itself in circulatory ebullitions, sensorial hyperæsthesia, muscular relaxation and depressed nutrition. Here, once more, we are not disappointed, and can readily trace its relationship with apis and lachesis as well as with murex, moschus, cantharis and other drugs of animal origin. With this state of depressed nutrition we are not surprised to find existing a relaxed condition of all the tissues of the body, an atonic condition, one of lassitude, of muscular weakness and relaxation, not only of the voluntary but more palpably in this case of the muscles supplied by the sympathetic nerve, including those which regulate the calibre of the blood vessels (*vaso motor*). A condition resembling that found under gelsemium, but more profound and more enduring. The gelsemium relaxation involving more the voluntary muscles.

So as sulphur is thought of as the chronic aconite, and *calcareo carbonica* as the chronic belladonna, sepia may be thought of as the chronic gelsemium.

The most pronounced evidence of this tissue relaxation is shown by the ever-present tendency in the Sepia patient toward a sagging of the movable tissues, especially the dependent ones, the bowels, the rectum and the womb, giving us many of the important characteristics.

1. "The gone, weak feeling in the epigastrium," due to the determination of the bowels toward the lower abdomen.

2. The feeling "as though the womb would drop out, causing her to sit down and cross her legs for support," due to relaxation of the uterine supports as well as the passive hyperæmia of the organ increasing its weight.

prolapsus recti and the feeling as though there were a weight in the stomach described by some persons as a "round ball." The same atonic condition exists in Sepia the characteristic "pot-belly."

Among the above symptoms we have a sensory hyperæsthesia caused by mental irritability, an intolerance of odors, of strong light, and of contact.

In a Sepia patient has a headache you will find her in a dark room to avoid the noise of the children and the smell of the cooking. Her aversion to contact is shown in her aversion to sexual intercourse, and she complains besides vaginal pruritus.

Circulatory irregularities found in the Sepia patient are caused by a morbid condition of the vaso-motor nerve, displaying itself notably in the portal and coronary vessels, and producing a hyperæmia in the most dependent parts of the field of their distribution.

We get the congested uterus, rectum, ovaries and kidneys, produce in their turn, symptoms, central and reflex, all over the body, and these are they responsible for the disorders of cerebral circulation, and the disorders of gastric digestion so closely simulating the disorders attending pregnancy and the climacteric.

When the blood altered in chemistry and specific gravity we find a lack of freshness in its parts and an exudation of coloring matter into the tissues, producing yellow spots (so-called liver spots), splotches, discoloration of the yellow saddle across nose), and (from the same cause) acrid eruptions and scaly eruptions at the bends of the joints where the sebaceous glands are numerous and on the dorsal surface of the phalanges, also catarrhs of all the mucous membranes, whose secretions on the parts they touch sore like those of Sulphur, Nitric Acid, Kreosote, and Mercurius corrosivus.

A Sepia patient is often a female, is delicate, dyspeptic and depressed (as in the case of Gelsemium), the latter both mental and visceral. She is graceful and beautiful, and, if typical, she is both, but she is absent-minded, sensitive, not only as to her special senses but mentally as well, the slightest motion will destroy her aplomb, producing circulatory disorders and perhaps fits of anger; as the showman said of the animal, "when not cretated."—*Medical Century*.

NINE FROGS MORE OR LESS.—By De Witt G. Wilcox, M. D., Buffalo, N. Y. With surprising regularity there appears in the public press anon a startling item of news about some agonized sufferer, who, dying with thirst, drank a few odd quarts of water from some old artesian well or isolated frog pond. Later, usually a year or more, he suddenly discovers that he has "got 'em." He does not "see 'em" but regular orthodox whisky "D. T.," whose statement we can always believe, but he "feels 'em." He at once announces to the world that he is something alive in his stomach. He knows he has 'cause he can feel the tag with his liver or trying to snap the whip with his truant appendix. Then the fun begins:

It is a usual thing the patient has not undergone a full preparatory training in housing and boarding live reptiles in his stomach and the sudden change of his heretofore quiet and orderly "innerds" into a full-grown

menagerie occasions him a little worry of mind and a few gastric gymnastics. For instance, when the victim of the frog pond sits down to sing the baby to sleep, the frog sets up such a loud croaking that the baby cannot be quieted. But in our pity for the victim, we must not forget the poor frog. If he has happened to be swallowed by a "hard drinker," he is a lucky frog, for then he has liquid galore to sport in and something to keep up his "spirits." Maybe his host is a periodic drinker and only gets filled up once a month. But, of course, frogs which will persist in getting into men's stomachs must take their chances on occasionally striking such a stomach or even falling in with a prohibitionist.

Again, frogs (that is, real frogs) enjoy fresh air; in fact, to stay alive with any regularity they must have it. Now, it seems like cruelty to animals for a man to shut up an innocent frog, in his stomach, and ask it to live there, singing every night and looking pleasant daytimes, without giving him a bit of fresh air. You know Jonah only stayed in the whale's stomach three days and then had to come up, 'cause Jonah was a good man and you cannot keep a good man down. But there's a poor frog without any social standing, suffering the stigma of being an ante-bellum green-back, shut up without a bit of fresh air, no food, and not room enough to jump his board bill. Of course, some frogs might have the sagacity to "fall in" with a man who had frequent attacks of "wind on his stomach," and thus get air, although of a questionable quality.

Then, too, frogs enjoy something to eat occasionally. Here again, comes in the cruelty. You cannot expect a frog who has been brought up on flies, worms, bugs and lily pads, to suddenly swear off and live on beef-steak, mince pie, rarebit, and pigs' feet. He cannot do it and keep his voice.

But I have reserved for the last the cruelest part of this whole thing and when you see it as I do you will agree with me that Gov. Hughes should appoint a commission with a power and put an end to this frog, snake and lizard swallowing business, and incidentally to the newspapers which publish these shocking barbarities to innocent animals.

You know a man's stomach is made to digest most everything except nails, glass, and *lignum vitæ*. Now, as frogs, snakes and lizards have none of those elements in their makeup, they run a tremendous risk, when swallowed alive, of getting digested just the same as beefsteak. Why, such a situation is a greater risk to those little reptiles than it would be for a baby to go into a den of lions. But I suppose, Mr. Editor, you assume, as you have the right, that the man who is so inhuman as to swallow a pretty little greenbacked frog has his stomach so arranged that when digestion begins, the frog and other digestible animals can be sort of side-tracked into a cyclone cellar, where they can remain secure until the danger of digestion has passed over; then come out and play leap-frog until the next whirlwind of digestion comes on.

By the way, Mr. Editor, I almost forgot to suggest a little experiment, which while it may spoil the frog will help science. Suppose you take an ordinary drinking glass, place therein a mixture which any chemist will prepare for you, consisting of water, hydrochloric acid, pepsin, pancreatin, etc. (You can get this all at a drug store). Now, put a live frog, snake, lizard (or hippopotamus, if you can get sufficient of the mixture and a receptacle) into the fluid, which is in fact an artificial gastric juice, such as

manufactures for every meal it digests. Then seal the top of
own close and take a few hours off to see what becomes of the
In about ten hours or more, the live animals will be pulp or
red so by the gastric juice.

ch which will digest steer's muscles (beefsteak), calf's brain,
ney, cow's liver, pigs' feet and ox tail ought to be ashamed of it-
k at a little weeny tender frog, and soldier on the job six
really, don't you think so too?

Mr. Editor, the next time you are tempted to make a grab for
and clip something about a man who swallowed nine frogs six
and can count each one as it jumps and croaks in his stomach,
little experiment mentioned, to make sure you are not getting
—(*Buffalo Evening News*).—*The American Physician*.

L. VACCINES.—Recently there came into our hand, a peculiar lit-
written in 1895 by a Dr. J. C. Burnett, of London. We do not
cussing the merits of this book, but we confess to being made
dizzy over some of the remedies proposed.

uation of scabies vesicles was suggested in the treatment of
philis, and chronic ophthalmia; lymph from a small-pox pus-
ed in treating small-pox; a maceration of tuberculous lung, in
phases of tuberculosis; pus from a septic abscess in puerperal
and septic fevers. All these were so prepared as to kill the bac-
reserve the toxins.

go we would all have smiled very broadly at such therapeutics.
re are in this year of grace 1908, working medical editors over-
effort to make an old theory appear new.

n what we can understand of the writings of Wright, Liesh-
t, Lawson, Hains, Trudeau, Moller, Ross, and others, it is very
t the opsonic index does possess a real significance and *is new*,
estion now pressing for an answer is how far it will serve as a
e therapeutic use of bacterial vaccines—which are not new rem-
ny means.

ck in 1888 to 1890 the profession was just as excited over Koch's
as they are over raising the opsonic index to-day. Then fol-
"new tuberculin" and "aviare," or tuberculin from birds, while
erprising homœopathic investigators have been using various
attenuations of cancer juices, and even diluted gonorrheal pus,
ast in precisely the same indications, though usually in less dose,
cent investigators, who employ artificially cultivated attenuations
g the same thing.—*The Medical Counselor*.

HEALTH.—To the lay mind, health and disease are terms which
itions, one desirable and the other to be avoided. Beyond this
tal description no further thought is given the problems which
plex the scientists and divide the medical profession into great
"schools." With the conflicting and vacillating opinions of the
necessary to be something of a mental gymnast to keep abreast
dly changing ideas of scientific thinkers. Fortunately, however,
c condition is giving way to an orderly arrangement of estab-

lished facts and, to-day, we know for a certainty many very interesting things about health and disease.

It is now believed that life depends upon the activity of the bodily cells. Going from the gross mass of the body to the separate and distinct tissues and from these to their minutest portions, it has been determined that the smallest possible division of living matter, capable of form and function, is the cell. The infinitesimal size of the cell is something amazing; in the liver, for instance, it has been found, by careful measurements and estimates, that a single cubic inch of that organ consists of 156,000 million separate and distinct cells!

Health depends upon the well-being of every cell of the body. The cells must be nourished and refreshed, waste products must be carried away, and new material supplied as required. In the light of present knowledge, disease consists of some disturbance in the metabolism of the cell. By this term, metabolism, we mean the balance or equilibrium which exists between food supply and waste; normally, this condition is reached when the active cell constantly receives and assimilates precisely the right amount of exactly the proper food. In disease this balance is disturbed; insufficient or improper food interferes with the cell, causing it to be over-active or under-active, or to die. Then the individual becomes conscious of certain symptoms which are indicative of disease, and the physician's duty begins.—Royal S. Copeland, A. M., M. D., in *The Medical Advance*.

THE GENERAL PRACTITIONER AND HIS INSANE PATIENTS.—The conclusion of a paper in the *North American Journal of Homœopathy*, having the above title, by Reeve Turner, M. D., New York City, is as follows:

Don't make your prognoses too hopeful. You are apt to be disappointed.

Don't send the patient out on a globe-trotting expedition. He needs rest, and lots of it. Recreation can come after recovery.

Don't listen too attentively to the relatives' wishes regarding treatment. Usually they know little about insanity.

Don't take the case if you cannot have your way.

Don't treat a case at home unless you can command sufficient assistance.

Don't trust the patient unless you are absolutely sure, and then look out!

Don't trust a convalescing patient as you would one in the height of an attack. Accidents more often occur when recovery is near than at any other time.

Don't spoil the patient's chances with bromides and other sedatives.

And, above all, don't forget that the indicated remedy, homœopathically applied, is the best curative treatment.

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SPECIAL ACTION OF SULPHUR.

(Continued.)

BY

EDWARD FORNIAS, M. D., PHILADELPHIA, PA.

first division of my work I referred to SULPHUR as
ogenic element, in the second division I considered
pathogenic effects, and in the third division I shall
s *dynamogenic phenomena*, which we all know are
from pure experimentation upon the healthy human

In *Homœopathy* we can frequently draw valuable
s from the general action of drugs, but it is the
tic *localizations* of such general action that are the
essential factors in determining and individualizing
e of usefulness of any given remedy. By a knowl-
general actions we are in a position to appreciate the
nd organs attacked by any morbid process, but what
our stock of useful knowledge are the *secondary*
ons and *special phenomena*, as well as those *finer*
f *disease-expression*, neglected by all schools of
but ours. That SULPHUR acts more powerfully on
s than in the arterial system, on the *lymphatics* more
the nerves, on the *abdominal viscera* more than on
on the *skin* more than on the osseous tissue, would
nowledge of little value to us without those *pathogno-*

monic symptoms which characterize the general and local effects of the drug.

Following my usual plan, I have divided the pathogenesis of SULPHUR into two general groups, *nervous* and *vegetative*. The *first group* including the *mental, sensory, motor, and especial nervous phenomena*. The *second group*, the *nutritive, secretory, digestive, circulatory, respiratory, calorific and reproductive symptoms*.

NERVOUS SYSTEM:

A. We seldom hear of SULPHUR in connection with *mental diseases*, and yet its rich pathogenesis offers us abundant indications for the treatment of this class of disorders. Apart from Jahr, only Dr. Nash, in his excellent monograph on SULPHUR deals somewhat extensively with the subject.

A minute analysis of the *mental phenomena* of SULPHUR will show that its action in the *psychical sphere* is chiefly of a *depressive character*. Under this drug, the *general activity*, which is the total of the systemic reactions under the influence of psychic impressions, is abnormal, principally by default, hardly ever by excess, and hence *depression* is more characteristic than *excitement*. In SULPHUR, like in many other of our remedies, there is a defect of expansion, which ranges from simple concentration to nearly complete abolition of reaction. Externally, it translates itself by an absolute immobility or stupor. In a minor degree it may affect more particularly either the psychic or the somatic sphere.

The symptomatic elements of *depression* and *irritability* characteristic of SULPHUR, are the following:

1. *Sadness and dejection, with apprehensions of future misfortune.*
2. *Religious melancholy, with doubts about the salvation of his soul, but indifferent about the lot of others. Inconsolable, with reproaches of conscience, despair of salvation, much weeping, and inclination to spend hours in doing nothing but brooding.*
3. *Great inclination to weep. (PULS., NAT. MUR), frequently alternating with laughing.*
4. *She does not take interest in anything or anyone, is pusillanimous and disgusted with life. Too lazy to rouse herself up and too unhappy to live. Tendency to suicide.*

g the day she frequently feels despondent and un-
out knowing why. She wishes to die.

disposition to contemplations and to philosophical
s reveries. (Religious monomania).

ideas, or delusive conceptions of being possessed of
mans and beautiful things; everything, even rags,
ful to her.' Destroys her clothing as she thinks
nothing in abundance. Wandering talk about what
s. (Delire d'enormite).

de grandeur, with inclination to deck herself with
and trinkets, or put on old rags of bright colors,
as they are fine decorations.

walking in the open air she becomes suddenly sad
(ER); she is filled with anxious, vexed, desponding
t she cannot get rid of; this makes her apprehen-
s her unto tears.

t flowing of ideas of a disagreeable, distressing
pecially at night, in bed, or during a walk in the

of anguish, in the evening, after lying down, with
with a feeling as if about to die, with inclination

imagines she has fine clothes, looks upon old rags
dresses, takes a coat for a vest, a cap for a bonnet.

ochondriac mood through the day and merry in

. Capricious, morose and ill-humored. The
fiction makes her susceptible and tearful. Com-
amentations day and night.

ness of mind and body, during the day, with dis-
o any kind of labor, to talk, to move or to pleas-
ly in the evening. Memory gone.

eks of anxiety, in the evening. Nocturnal fear of
earful and liable to be frightened. Childish talk

obstinate and peevish that he does not answer any
e does not want any one to come near him, and
ast enough what he wants. Vindictive and hard-

t restlessness in the body, which does not allow of

. Restlessness and hastiness. Irritability and

Fear of being pursued by ghosts, or of killing
sonous drugs.

From a review of the preceding syndromes we can see that SULPHUR also embraces *signs of excitement*, a morbid state which translates itself either by a disordered activity of the *intelligence* and the *emotions*, or by a mere exaggeration of the normal acts. In general, then, we can assert, that the most powerful *elements of mental disorder* in this drug refer to the *intellect* and the *emotions*; the *motor impulses* being of little import. In the *intellectual group* we include: *hallucinations*, *illusions* and *delusions*. We understand by *hallucination*, a morbid mental state in which the perception is a phenomenon of pure cerebral automatism, not provoked or preceded by any actual peripheral impression; nothing but a baseless creation of the fancy, while *illusions* cannot be produced without the presence of an exterior object, it is a real impression, but modified or perverted before it is perceived; a mistake of the senses; but any *illusion* or *hallucination* misleading the judgment and governing the conduct is a *delusion*, which is thought to be the only conclusive evidence of *insanity*. In the *emotional type*, apart from *disorders of the affections*, we take in *aberrations*, depending upon pride, egotism, hatred, revenge, prodigality, discouragement, constriction, humility, apprehensiveness, etc. In the *motor impulses* of SULPHUR there are no *disorders of the instincts*, and as to the *acts*, the only irresistible one, and of any account, is the *inclination to suicide*.

Intellectual phenomena are also the *disorders of memory*, which in SULPHUR are very important:—They comprise, first, a *marked confusion and bewilderment of the sensorium*. The head is dull, with *great weakness of the memory*, especially for names. *Thinking is difficult and the patient mistakes one phrase for another. Misplaces and cannot find the proper words, when talking or writing. She forgets what she was saying, or was about to say.*—Secondly, there is a *stupid state*, and the patient has to make an effort to comprehend and answer correctly. *If spoken to, he reacts, but appears bewildered, as if awaking from a dream, or as if absorbed in his thoughts.*

Besides the *extreme forgetfulness*, we should include in the *mental group*, not only the *vertigo*, with its various modalities, but the disturbances of the nervous function of *sleep*, in which *insomnie*, *semnolence* and *dreams* play the most important part.

The *vertigo* of SULPHUR is most apt to occur in the morn-

ing, sometimes with a slight nosebleed, although as many other symptoms of this drug, it may occur in the evening or at night when the patient is in bed. It is *produced* or *aggravated* by sitting, stooping, and by walking in the open air. When sitting, the patient may stagger on rising; when *stooping* he may fall to one side; and if it is *violent* and occurs in the morning when rising, if the patient attempts to stand, he falls back on the head. Crossing a river causes *vertigo*, with *inclination to vomit*, and the same happens when looking upon objects in rapid motion. Other *vertigos* that have been cured by this remedy are: those occurring *in the aged*, when rising from bed, or in *chronic alcoholism*, with abdominal plethora, hemorrhoids and constipation, especially if there is recurring sleepiness after meals.

The physiological analysis of *sleep* and *dreams*, as well as of *somnambulism*, is one of the most interesting studies the student can make. Let him start by considering that the *cerebral functions* are intermittent, and pass through the stages that *periodically* succeed one another: One the *stage of activity* or *wakefulness*; the other the *stage of reparative inactivity*, or *sleep*. Then let him bear in mind, that in all cases *sleep* coincides with the abatement of the *cerebral circulation*, and that causes which increase the activity of the circulation, disturb and *retard sleep*, producing *insomnia*, while those which diminish this activity, *provoke and prolong sleep*, inducing *somnolence*. And, finally, he must reflect on those restricted manifestations of psychic activity which frequently obtain during sleep and are known under the name of *dreams*; manifestations whose characters are, in general, the absence of consequences, and the incoherence in the images and ideas, which succeed each other, and which are the result of an incomplete and disordered cerebral operation, and of a partial and unequal working of the centres. On the other hand, *somnambulism*, which, we all know, is a condition in which the patient executes automatically various feats, such as writing, talking, walking, etc., becomes very interesting in connection with *hypnotic suggestion*. He should likewise know that *sleep* can be provoked by suggestion, and that the *hypnotic sleep* of hysterical subjects may present itself under different aspects (*lethargy, catalepsy, somnambulism*). No less important is it for him to know that, as in *diabetes*, there may be an invincible inclination to sleep, or *narcolepsy* (Ballet), and that an exaggeration of this

nervous function is characteristic of the *sleeping disease of the tropics*, which is caused by a parasite called trypanosoma. Young physicians at the beginning of their careers will always have ample opportunity to watch the course and duration of *insomnia*, which is *short-lived* in states of fatigue and exhaustion and during emotions and cerebral excitement; *characteristic* at the onset of infectious diseases (*typhoid and eruptive fevers, pneumonia*), and persistent in *heart-disease, respiratory troubles, and alcoholism*; while it is *complete and of long duration* in *meningitis, mental diseases, syphilis, tumors, etc.* Other sensorial anomalies are, the *night-terrors of children*, and the *apathy and stupor* in febrile, as well as in non-febrile affections, where they are so frequently the precursors of *complete unconsciousness* (coma, lethargy).

The phenomena of *pathological sleep* in SULPHUR are chiefly observed during a *state of irritability*, in which *insomnia* predominates, and during a period of *diminished sensorial activity*, in which the results are *somnolence and prolonged sleep*. Some symptoms occur before the actual sleep, and others attend and disturb this reparative nervous function.

1. *The sleep of SULPHUR is usually late, light and unrefreshing, often amounting to short naps or frequent waking; or may be long, heavy, interrupted, and exhausting.*

2. *It is disturbed or prevented by vivid dreams, fear of ghosts, hallucinations, illusions, delusive conceptions, nervousness, unrest, tossing about, jerks and twitches, night-terrors, respiratory obstruction, excitement, vascular orgasm, delirium, cramps in the calves, persistent itching, burning heat in the palms and soles, and pains of various kinds.*

3. *During sleep, the leading symptoms are crying, screaming, starting, tossing about, jerking and twitching, talking, singing, laughing; or vivid, beautiful, happy dreams; or anxious, fearful dreams, especially on awaking, about danger, dogs and cats, fire, etc.*

4. *Sleeplessness in the evening, while mentally engaged. Sees numerical characters or arithmetical figures, increasing more and more to uncomputable amounts.*

5. *Irresistible drowsiness in the daytime and wakefulness the whole night. Is despondent, out of humor, weeps much and falls asleep late. He has to lie on his back (Lippe).*

6. *Night full of unrest, tossing about, nervous excitement, dreams and terrors. Little sleep throughout the night.*

7. *Frequent waking, or late waking. Awakens frequently at night and feels very weak and faint in the morning. (Cleveland).*

8. *Waking frequently during the night, when one becomes wide awake suddenly.*

9. *Talks incessantly in sleep and awakens with start. After an anxious dream talks unremittingly of ghosts. (Jahr).*

10. *Irresistible inclination to sleep late in the morning. Sleepy after each meal. Sleepy all day.*

11. *Recurring sleepiness, after each meal, with vertigo and torpid liver. (Verified by myself). With venous stasis.*

12. *On closing the eyes sees apparitions and gesticulating faces. Funny, graceful visions in the evening.*

13. *He walks about in the room without knowing where he is, with open eyes, uttering words or phrases heard before. Somnambulism.*

14. *Has happy dreams; wakens singing, is very happy. (Guernsey).*

15. *Short naps all night, or a heavy, dead sleep, which produces exhaustion. (Guernsey).*

16. *On going to sleep, one leg is suddenly drawn up and shot out again, particularly when rousing him. (Raue).*

17. *Child jumps, starts and screams fearfully. Wakes in affright. Night terrors.*

18. *Late sleep in the morning, not refreshed on waking. Sleepy in the evening, but cannot go to sleep for a long time, and during the night, wakeful, with excitement, restless tossing and rush of blood to head and chest. (Dunham).*

19. *Great sleepiness, with weak, faint spells, after nursing or night-watching. (Hering).*

B. **DISORDERS OF SENSATION.**—The pathogenesis of SULPHUR is rich in phenomena of sensitive irritability, and those phenomena develop either as true pains, or under the form of morbid sensations (*peresthesias*). Pains, like sensations, are general and local, and of variable intensity and location. From a clinical point of view the informations concerning pain are of great importance, since there are few affections unattended by pain. We homœopathists are always attentive to painful or distressing sensations, and utilize the knowledge we have of them, well, but our friends, on the other side, seem to consider peripheral localization of painful feeling of little

value, and this, on account of their subjective character and in consequence of the irradiations, they frequently present when other nerves are excited by the affected one. Certain pathological facts, however, such as analgesia without anasthesia, or the reverse, make us surmise that, for pains, there are nerves independent of the other sensory nerves. We know quite well that various drugs called narcotic, analgesic, etc., have the property of relieving and even arresting pain while they are acting.

The student should have also a discriminative knowledge of both *pains and sensations*, for it is necessary to a just appreciation of many morbid states in which both of these phenomena are so frequently present. *True pain* is an abnormal and distressing impression received by any living tissue and perceived by the brain. It is not a particular form of sensation, but the exaggeration of any sensation, be this general or special, external or internal. *Pains* are as numerous as *sensations*, and like them are perceived by a group of cerebral cells, which, probably, is nothing but the centre of perception of all nervous sensations. The transmission of *painful sensations* is made by the *sensory nerves*, but, perhaps, there are among these nerves special ones for the carrying of impressions of this character; this, however, is only a supposition, and we likewise ignore to which organic modifications of the nerve-filaments correspond the *varieties of pain* that make them *acute, lancinating, tearing*, etc. It is generally supposed that the differences in the character and intensity of pain depend on the mode of action that causes the impression, on the state of the apparatus that receives and transmits this impression, and on the condition of the brain that perceives the impression. This sounds very reasonable, but we are certain that *sensibility to pain* varies with the strength, the constitution and even the race of the individual.

In studying the *general sensibility*, it is of the utmost importance to consider the *character of the pains*, whether they are *dull, burning, lancinating, tearing, tensive, throbbing, fulgurating*, etc., or if they are *continuous, fleeting, intermittent, periodical, diurnal, or nocturnal*. We want also to know how they appear, how long they last, their intensity, and their exact location, as well as if they are well localized (*neuralgic points*), or diffused or shifting. No less necessary is it to note their *mode of aggravation and amelioration*, as there are

pains which are increased by walking, by motion of the parts, by rest, by the heat of the bed, by pressure, by changes of weather, by dampness, by cold applications, etc., and *vice versa*.

The *causes of pain* are various. *Pain* is often the result of *traumatism, burns, cold*, and of any *organic alteration*. Sometimes it is inaccessible to our means of investigation, as in the case of *neuralgia*. Its *point of departure* is found, either at the level of the nerve-ends with which the *skin, mucous membranes, muscles, bones*, etc., are supplied, or in the *spinal cord or brain* itself. We see pain perfectly localized, as the *sensation of burning* limited to any tegumentary region, as the *lancinations* felt at the level of a *neuralgic point*. Sometimes it is of a *vague and diffused character*, especially when of cerebral or medullary origin. In the latter case it is *continuous and persistent*, while it is *paroxysmal* when it has as a point of departure the nerve-filaments or plexuses of the viscera. *Pain* is not always felt at the point of lesion, but at a distance from it, as the *pain of the inferior extremities* from medullary trouble, or that of *hepatic origin*, which radiates to the right shoulder after reflexion on the medulla, etc. *Pains in different parts of the body* deserve especial mention. If they are diffuse and *situated in the trunk and extremities*, far from the head and spine, they may be dependent on some local cause, on some *alteration of the blood*, or on a *cachectic state of the organism*. But, if none of these influences are discoverable, we should then surmise a trouble or *lesion of the nervous system*. And, finally, *pain is often attended by hyperesthesia of the teguments*, but we may have *painful anesthesia*, as in Raynaud disease.

GENERAL PAINS.

If you remember, says Hempel, that under the depressing action of SULPHUR, the nervous capillaries become congested, the stagnant blood resisting the arterial current, which seeks to drive it outward, you cannot have any difficulty in understanding the various pains which this drug is capable of exciting. It is exactly a well drawn picture of what a *chronic capillary congestion* can bring about:

1. *The pains of SULPHUR are of a drawing, tearing, stinging, burning, boring, cramping, laming and stitching character.*
2. *They appear or are increased at night, or with the change of weather.*

3. *Most of its pains come on during rest and go off during motion (RHUS TOX). Feel worse when standing. The right side is usually more helpless than the left.*

4. *The pains indicative of this drug are exacerbated by cold, and relieved by warmth (excepting toothache), although in the limbs and joints they are intolerably increased under feather-beds.*

5. *Some of its most predominant pains are seated in the limbs, chiefly in the joints; are of a rending and stinging character, and are attended with stiffness and inability to stand in the erect posture.*

6. *Certain pains of SULPHUR, especially those felt in the head and stomach, come on when walking and in the open air (reverse of PULS).*

7. LIPPE gives, under generalities, the following pains of SULPHUR: *Burning pains in external and internal parts. Bruised pains in outer parts. Cutting pains in inner parts. Stinging pain, in outer and inner parts; in the muscles; in the joints; from within outward. Biting, pungent pain everywhere.*

REGIONAL PAINS.

Of all *regional pains*, *headache* is undoubtedly one of the most important. It occurs in such great variety of affections that without considering its character and meaning, which always vary with the cause, we could not impart a real value to diagnosis. The *sensations* felt when suffering from *headache* vary also very much in character and intensity, according to its origin. Often it is *accompanied with sensorial troubles*, such as buzzing in the ears, photophobia, diplopia, etc., and general malaise. Sometimes it depends on an affection of the scalp, or bones of the skull, on a cerebral lesion, on a neurosis, or on a disease far from the head. Occasionally it covers the whole head or is confined to a cephalic region. If located in a lateral half it is called *hemicrania*, if in the anterior region, *frontal*; if in the posterior, *occipital*; and it is also seated in the *vertex*, or in a very limited space (*neuralgic point*).

Headache is a common attendant of many *cerebral diseases*, especially *tumors* and *syphilis*; also of *neurasthenia* (helmet pain), and of *meningitis*, where it becomes often atrocious. *Continuous headaches* occur, likewise, in *chlorosis*, *heart-disease*, and when attending *diabetes* it denotes a grave form of

the disease. It is often the first sign of a *developing uræmia*. But if *diffuse and transitory*, it is usually of small diagnostic value, as in fever, overexertion, excesses, dyspepsia, constipation, female genital disorders, or from impure air, and sometimes when due to the weight of the hair.

1. *The headaches I have successfully treated with SULPHUR have been usually diffuse and fleeting, or of a congestive origin, seldom continuous, and of an acute character.*

2. *The congestive headaches of SULPHUR are chiefly attended by nausea, flushes of heat, heat on top of the head, heat and noises in the head and cold feet. (Imperfect calorification).*

3. *They may be throbbing at night, principally in the vertex, with venous plethora and heat in the brain; worse on waking in the morning, when moving about; on stooping, and in the open air (PULS. reverse); better at rest and in the warm room. He feels every step painfully to the head (SILIC).*

4. *An acute headache frequently cured by SULPHUR is one characterized by a frontal pressing and tension over the eyes; or one that is general, with a feeling as if the head were encircled by an iron hoop (MERC). (Neurasthenic headache).*

5. *I cured with this remedy a weekly, periodical headache in a worker in lead in which the distinctive features were confusion, pressure, rending, falling of the hair, abdominal plethora and constipation.*

6. *Other congestive localizations recorded in our books are: Fullness and heaviness in the occiput, and long continued pressing headache in the forehead, with throbbing and tension in the brain during every mental effort.*

7. *JAHR refers to vertical headaches, worse when masticating, coughing and blowing the nose; to nocturnal headache, from the least motion in bed; to a headache as if a hoop were around the head, or as if it were screwed together; to a darting headache, chiefly in the forehead; to a daily headache, as if the head would burst; and of a headache from working in pewter and lead.*

8. *LILIENTHAL includes in his therapeutics: Headache with vertigo when going upstairs; headache from abdominal plethora or from suppressed skin diseases; chronic gouty and rheumatic headaches, increased by mental exertion, motion, coughing, sneezing; and sick headache, once a week or every*

two weeks, very weakening, with lacerating, stupefying, benumbing pains.

The clinical significance of *backache* is great, for it is a symptom present in a large variety of serious maladies, as rectal abscess, floating kidney, renal and vesical calculus, cystitis, acute nephritis, spinal irritation, dengue, appendicitis, abdominal aneurysm, etc. Its association with variola, typhoid fever, chlorosis, rheumatism, uterine disorders, gonorrhœa, orchitis and hysteria, is much less important. From a point of view of its character and of its causes, it presents *certain analogies with headache*. It may cover the whole length of the spine, be limited to a particular region of the same, or be confined to special spots of the cord. *Backache* may depend on a *muscular or osseous lesion*, or irradiate to neighboring parts when the result of a *nervous or medullary alteration*. Sometimes its origin is an *affection of the soft and hard tissues of the spinal region*, at other times is due to a *neurosis* or to a *disease not localized in the spinal cord*. The *backache* is often *dull, contusive, laming, or lancinating and acute*. Sometimes is *throbbing or burning*, and accompanied by *numbness*; at other times it is *continuous or paroxysmal*, exacerbated or not by pressure, motion, etc.

When pain is localized in the muscles and fascia across the loins, rendering movement of the lumbar region painful, the term *lumbago* is used to express the pain. It may be a *neuralgia of the loins*, or of *rheumatic origin*. Like *torticolis*, *lumbago* may be *intermittent* and constitute a variety of *masked ague*.

1. *The DORSAL PAINS OF SULPHUR are well defined and important. They are of a drawing, rending, tensive, and stinging character, and chiefly of rheumatic origin; attended by stiffness, and seated in the nape, back, loins, and small of the back.*

2. *In the lumbar region we do not only have a peculiar stiffness, but a sudden loss of power on attempting to move (RHUS), and the pains are worse on walking, and especially on rising from a seat.*

3. *Among the painful sensations of the spinal cord are soreness and weight, as well as burning and tearing, and Jahr gives stitches in the back and sacral region.*

4. *Burning and laming pains, and pulsative stitches in the*

region of the loins, and of the kidneys, are also recorded in our *Materia Medica*.

5. The caudal end of the spine seems to be particularly influenced by SULPHUR, for there is pain in the small of the back when rising from a seat; pain above the small of the back when walking, not when sitting; drawing pain in the small of the back; cracking pain in the small of the back down to the anus; burning pain in the small of the back, near the anus; gnawing pains in the small of the back; and pain in the small of the back, not permitting one to stand.

6. LILIENTHAL gives drawing pain and weakness in the back, with creaking down the arms; and gnawing on a little spot; when pressing on it only a bruised pain is felt; severe pain on sneezing, as if the back were dislocated, then drawing pain along and near the spine and from thence into the left groin and testicle, especially painful on rising from a seat and while walking.

PAINS IN THE LIMBS may be due to a local cause (*abscess, periostitis, synovitis, etc.*), or dependent upon a *cachectic state* (*lead poisoning, scurvy, malaria, etc.*), or upon an alteration of the blood (*rheumatism, gout, syphilis, etc.*) But sometimes they are the results of *peripheral neuritis, or neuralgia*, in which case they are often accompanied with *trophic changes*, such as *erythema, zona, pemphigus*, and may determine lasting *reflex contractions*, sometimes followed by *persistent deformities*. Many *diffuse pains extending to the thighs and limbs are due to uterine and ovarian disease*. Pains in the lower extremities have often a mechanical origin (*pressure pain*), due to tumors or enlargement of various kinds of the organs within the pelvis. There is a possibility of such pain to attend early pregnancy. *Pelvic tumor* often gives rise to *painful cramps* in the calf of the legs, and a *painful contraction of the thigh*, with inability to extend the limb, is a marked symptom of *pelvic abscess*. The appearance of *fulgurating, lancinating, boring or constrictive pains* along the inferior extremities, returning in short spells and repeated during four or five consecutive days, especially if they leave in their course rashes or ecchymotic spots, are the prelude of *progressive locomotor ataxia*. These pains like the *girdle sensation* are under the dependence of a *posterior sclerosis*.

The pains in the extremities produced and cured by SULPHUR are the following:

1. *Drawing, rending and stinging in the limbs, chiefly the joints, with stiffness, intolerably increased under feather-beds (MERG.).*

2. *Wrenching pains in the joints, with heat, and pale, tense, hard tumefaction.*

3. *Painful straining in the limbs, as from decurtation of the tendone (NAT. MUR.).*

4. *Drawing, rending and stinging in the muscles and joints of the shoulders, arms, hands, and fingers. Drawing and rending in the legs, chiefly at night in bed.*

5. *Tension and straining in the knees, with swelling and stiffness.*

6. *Rending and stinging in the knees and feet.*

7. *Pain in the calves when walking, or in the soles of the feet when treading on the ground.*

8. *Painful cramps in the calves and in the soles of the feet at night.*

9. *Painful soreness and tension in the muscles of the extremities, especially in the aponeuroses, with inability to move them.*

10. *Tearing in the joints of the arms, hands and fingers.*

11. *Drawing and tearing in the arms and hands. Slow, painful drawing in the forearms, extending from the elbow to the wrist and back again.*

12. *Stitches in the shoulder blade. Pain as if bruised or sprained in the left shoulder blade. Rheumatic pains in the shoulder, especially in the left. Lacerating pains in the shoulder and shoulder joints, especially at night.*

13. *Tearing in the limbs, muscles and joints from above downward (LEDUM from below upward).*

14. *Erratic pains, with or without tumefaction, or excruciating pain on motion in ascending inflammation of the joints, starting in the feet and passing to upper joints.*

15. *The pains of SULPHUR appear or are worse at night, and the patient feels better while moving about (RHUS), and is worse in a standing posture; as they are exacerbated by cold, and better by hot, applications.*

THE PAINS IN THE CHEST are of variable intensity and location: From a mere feeling of weight and tightness to a tearing, lancinating, burning pain, which may be continuous, paroxysmal, or provoked by pressure, by coughing, or by deep inspiration. Sometimes it is confined to a spot of the thoracic

wall, as in the infra-mammary region in cases of pleurisy (*stitch in the side*); at other times it extends to a larger area, is seated at the sternum, at the apex of the lung, at the epigastrium, between the shoulder-blades, etc. Its *point of departure* is found in the chest muscle, in the intercostal nerves, in the pleura, or in the diaphragm. Occasionally it attends a *lesion of the lung tissue*, and may be related to a *neuralgic or pleuritic affection* complicating the lesion. It is in *pleurodynia, pleurisy and pneumonia* where the *stitch in the side* chiefly exists. A *very acute, sudden pain* rapidly appeased and accompanied with intense dyspnœa and amphoric character of breathing, voice and cough, is a manifestation of *pneumothorax*. In *pulmonary tuberculosis* there are indefinite *intercostal pains*, more frequently erratic than acute and fixed; the latter, attributed to *partial pleuritis*; the former, to a *neuritis* of the intercostal branches. *Precordial pain*, which is usually of a *stabbing character* and attended with anxiety and fear of death, has a real diagnostic value in *angina pectoris*; but we should bear in mind that this pain may exist in non-cardiac troubles and is often absent in heart disease.

Under SULPHUR the *thoracic pains* are very important and have led frequently to its use in *pleuritic and pulmonary troubles*. They are chiefly of a *sharp stitching and burning character*; and the left side seems to be more particularly affected.

The principal pains are:

1. *Sharp stitching pains through the left lung to the back, worse lying on the back, and from the least motion (BRYONIA).*
2. *Stitches in the chest, or stitches in the left shoulder-blade, with short, dry cough.*
3. *Stitches through the chest, extending into and going through the left shoulder; worse when lying down on the back, during the least motion, when drawing a deep breath, or when lifting up the arms.*
4. *Burning in the chest, up to the face. Congestion in the chest.*
5. *Stitches in the sternum, or in the chest, extending to the back, or in the left side, when coughing, deep breathing, or raising up the arms.*
6. *There are besides, pressure, fulness and spasms in the chest, and pain as if the chest would burst, when coughing and sneezing.*

7. *Contractive pain around the chest, or pain in the upper part of the chest (apex), as if bruised.*

8. *Burning in the interior of the right clavicle, as far as the sternum.*

9. *Painful sensation as of screwing together in the chest, or as of a hoop around the thorax.*

10. *Beating, cutting and burning deep in the chest, especially after a walk in the open air.*

11. *The chest is externally, painfully sore, chiefly in the right ribs, or sternum, when touched.*

12. *Stitches in the sternum, with a feeling of external dragging; or the patient complains of his lungs touching the back during spells of coughing.*

ABDOMINAL PAINS. The abdomen presenting, as it does, the largest vascular area of the body, with its vast serous tunics, its numerous inter-visceral and parietal attachments, and important nervous expansions, becomes, naturally, the seat of many *obscure sensory phenomena*, which we do not neglect to consider; but actual *abdominal pains* always have a greater semeiological value, especially if we study carefully the circumstances as to their origin, seat and character, as well as to their appearance, course, and duration. *Abdominal pains extend* sometimes over a large space; at other times they are *limited* to a circumscribed region or point, from which they *radiate to distant parts*; towards the chest, the back, the loins, the genitals, thighs, etc. They appear spontaneously by pressure, or occur after taking food or any particular kind of food. They may be *relieved* by a prolonged firm pressure, or *provoked* by the slightest external contact. Some *abdominal pains* are *obscure* and *dull*, others are *acute* and *intolerable*, and they are often *paroxysmal* or gradually increasing. Again they are *permanent* or *fleeting*; appear and disappear suddenly; develop slowly, or appear abruptly, according to origin (*organic affection* or *nervous trouble*). Their usual seat is the *stomach and intestines*, but are often localized in the *liver, the kidneys, the bladder, the uterus, the ovaries, the peritoneum, and in the walls of the abdomen*. There are *other pains* present in these localities which are the *result of inflammatory changes and congestion*. In this group are principally included all cases in which the ordinary signs of inflammation become manifest. When attended with *pain, heat and throb-*

bing, tenderness to touch, rigors, feverishness, rapid pulse, etc., they often indicate inflammation of the uterus, or its peritoneal covering, or of some of the adjacent viscera or their covering, and they are most commonly the consequence of labor, of abortion, of a sudden disturbance of the menstrual function, or of operations about the genital organs. A frequent result of many of these cases is the formation of pus (*pelvic abscess*), and occasionally hemorrhage into the peritoneal cavity, giving rise to *peritonitis*. Besides these inflammatory pains, there are others due to displacement, or to distortion of certain viscera, as the uterus and ovary. Of these pains, the most common are those associated with menstruation (*dysmenorrhæa*). The uterine pains may radiate to the back and loins, or extend to the ovarian region, deep down behind one or both groins, and it usually extends from this spot down the thighs. In character they are severe, paroxysmal, intermittent, and resemble labor-pains. It is important not to mistake abortion for dysmenorrhæa, and vice versa.

Various pains referable to the generative organs, and not associated with menstruation, are either reflected or produced by pressure on the nerves supplying the painful parts. Pressure-pain within the pelvis is chiefly due to tumors. There are four principal situations in which pain referable to the internal generative organs is experienced by women suffering from disorders of those organs. These situations are: *The back, the groin, or ovarian region, the median hypogastric region and the lower extremities*. Again we should bear in mind that there are many reflected pains of the abdomen that have been mistaken for inflammation, especially in hysterical patients; and as the character of the pain by itself offers no conclusive indication, and the pain of hysteria may resemble in degree and intensity almost all varieties of pain, we have to recur to the pulse as the best criterion. In the estimate of the causes of reflected pain, the disorders of the bladder should not be forgotten.

There is also an important class of cases in which pain of an acute character is suddenly felt in the hypogastric region, accompanied with great prostration and depression and shock to the system generally. When such acute pain appears in the right iliac fossa (*McBurney's point*), radiates to the loins or thighs, and is exacerbated by pressure and motion, we should suspect appendicular trouble, though we know well that

the appendix may be almost obliterated without the least symptomatic evidence of *appendicitis* being discernible.

And finally, the *bearing-down pains*, which also occur in SULPHUR, are often but a mere *painful sensation of weight in the pelvis*, though they may be accompanied with backache, and inability to walk, and radiate down the thighs, as in *chronic prolapse*. It is a common complaint in women suffering from *chronic disease of the uterus*, especially when, with emaciation, there is a bad state of health, indicating *imperfect nutrition*. It is a *more painful suffering* in alteration of shape and position of the uterus, particularly *ante-flexion*. Pains of this character are also present in cases where tumors, pregnancy, polypi, fibroids, cancer, etc., exist. They generally point out the necessity for exploration of the uterus from the vagina.

The symptomatic complex of the abdominal pains of SULPHUR embraces a diversity of *painful sensations of various kinds and degrees*, which have an important clinical meaning; just as the *paresthesias* are common attendants of serious denutritive processes. I give them here as recorded in our *Materia Medica*:

1. *Pressure, stitches in the upper part of and sides of the abdomen, aggravated by deep inspiration, by walking, and associated with a sensation of burning.*
2. *Burning soreness or internal rawness in the abdomen, worse on motion and deep inspiration, as well as at night.*
3. *Painful sensitiveness of the abdomen, as if all parts in it were raw and sore; as immediately after labor.*
4. *Burning in the upper abdomen, worse from motion. Pressure in the hypogastric and pubic regions. Constant digging up in the abdomen.*
5. *Stinging abdominal pains, chiefly in the left side, when walking or breathing deep.*
6. *Pain in the abdomen as if something would be torn out. Cutting in the epigastrium, which sometimes seems to be felt in the chest.*
7. *Sensation of pressure downward and outward in the inguinal region, with soreness and bruised feeling and extreme sensibility to pressure.*
8. *Pain in the abdomen during the menses, as if the intestines were strung up in knots by threads; has to take a sitting posture for relief.*

9. Rending colicky belly-ache, chiefly at night. Hemorrhoidal colic after drinking or eating, must bend double for relief (COLOC).

10. Severe, griping pain in the epigastrium, with tenderness of stomach and liver. Cramp in the stomach. Burning in the stomach.

11. The region of the stomach becomes very painful under pressure; even the weight of the bed cover causes pain (PULS.). Peritonitis.

12. Spasms in the stomach immediately after eating. Pains in the abdomen immediately after meals or liquids.

13. Digging in the pit of the stomach. Stinging and burning in the stomach and scrobiculus.

14. Pressure, tension and stinging in the hepatic region. Stitches in the region of the liver from within outward.

15. Feeling of tension and pressure in the hepatic region, and throughout the abdomen, with great depression of spirits.

16. Stitches and pressing pain in the region of the liver, or in the spleen, worse when taking a deep inspiration, when walking, or when coughing.

17. Abdominal spasms during menstruation. Bearing-down pains..

18. Violent pain in the abdomen during menses, with great heat, chilliness, and epileptic spasms: She became quite stiff, drew her mouth to one side, and moved to and fro without talking, with cold forehead and hands.

19. Abdominal spasms during the menses, with faint spells, restlessness and anguish.

20. Pain in the ovarian region to the back: She could not stand erect on account of the pain.

21. Pains which are located principally in the uterus, with scanty lochial discharge: She complains of feeling badly in the abdomen.

22. After pains from sacrum around the pubes and down the thighs, with weak and faint spells.

23. Bearing-down pains in the pelvis toward genitals, with weak, faint spells; or radiating to thighs, in chronic disease of the uterus, or in vascular moles.

24. Stitches in the bladder, with or without cutting in the urethra while passing urine.

There is another variety of pain, due to congestion and in-

flammatory changes in the mucous membranes and in the tegumentary tissues, which is produced and cured by SULPHUR.

In this variety are included those pains due to *hyperemic states of the mucous membranes*, especially in or about the outlets of the body, or to *ulcerative processes of these membranes and the skin*. Pains seated in these tissues are usually of a *burning, stinging, tearing character*, with special modalities according to location. *Toothache and bone pains* are also symptoms to be considered in connection with SULPHUR.

The chief symptoms and syndromes of this class, found in our medical literature, are the following:

1. *Itching, biting and burning in the eyes, lids and canthi. Sharp, darting pains like pins sticking into the eyes. Pressing, tensive, cutting and burning pains in the eyes. Pustular inflammation with sharp, sticking pains, as if a splinter were lodged in the eye. Inflammatory state of the lids, with smarting and burning, and a feeling as from sand. Tinea tarsi (ulcerous blepharitis).*

2. *Stinging in the left ear. Drawing and stinging in the ears.*

3. *Boring and burning in the upper nose, with a smell as from an old catarrh. Profuse discharge of burning water (ARS), or of bloody mucous when blowing the nose.*

4. *Burning blisters in the mouth and tongue. Swelling of the gums, with throbbing pain, and sometimes bleeding. Toothache, rending and drawing in the teeth, worse by warmth. Jerks and stitches in hollow teeth, evening or at night, from draft of air.*

5. *Stitches and painful contraction of the throat when swallowing. Stinging constriction, or pain in the throat as from a plug there.*

6. *Cutting pain in the urethra, while passing urine. Burning in the forepart of the urethra during micturition, and after. Stitches and cutting in the urethra and in the hypogastrium. Tenesmus vesicae.*

7. *Itching, stinging and burning in the anus and rectum. Lancinating pain from anus upward. Constant pulsating pain in the anus. Sore, sticking pain in the anus, with red borders. Violent tenesmus.*

8. *Ulcers on the skin, with rending, stinging, burning pains and tension, easily bleeding and discharging fetid pus. Erysipelatous inflammation, with throbbing and stinging pains.*

Vesicular eruptions chiefly burning and stinging, with soreness after scratching.

9. *Bone-pains, as if the flesh were off the bones, especially if they appear or are increased at night.*

Paresthesiæ.

I pass now to study the value and meaning of those *abnormal subjective sensations*, found not only under SULPHUR but under other remedies with which it is intimately related. The most *usual paresthesiæ of this drug* recorded in our *Materia Medica* are: *Itching, burning, tingling, crawling, pricking*, as well as *exaggerated sensations of cold and heat*. Less frequently we observe a *feeling of numbness, of tension, of constriction, of fullness, or of heaviness*. These *abnormal sensations* are of variable intensity and location. In intensity they chiefly run from a *voluptuous itching and tingling, to a distressing burning soreness and stinging; or from a mere feeling of coldness and heat to extreme internal chilliness and external heat, principally in flushes*.

Itching and burning are usually localized in the skin and mucous membranes, especially in the outlets of the body. *Burning* principally follows *itching*, after scratching. These sensations attend not only *certain dermatitis and vascular disorders*, but such *important diseases of nutrition as diabetes and gout*. *Itching* is also a symptomatic manifestation of arsenic poisoning, certain drug-rashes, irritating clothing, uterine disease, hysteria, and many other nervous diseases, but probably it is *chiefly due to irregular circulation*. It is sometimes observed in the *genitals*, as in diabetes; in the *thigh*, as in neuralgia paresthetica; in the *vulva*, as during the menopause; and in the *mucous orifices*, as in worms. It may exist as an *isolated symptom* in the skin. When *itching is severe* and distressing is called *pruritus*, and in the intense form, it is not only seen in *scabies, jaundice, indigestion and gout*, but it is a *common result of uncleanness*.

As a phenomenon of sensitive irritability *burning* is a characteristic of SULPHUR, but it is less significant than *itching* as an isolated sensation. It is only when attended with *deep stinging and cutting*, that it assumes the character of true pain and becomes more important.

There are other *paresthesiæ of visceral origin*, which no study of SULPHUR is complete without them, and among them

is a curious sensation known under the name of *aura*, which precedes an epileptic attack and serves as a warning of its approach. In this remedy it consists of a *creeping on the skin as of a mouse running over it*.

In semeiological value, however, the *sensations of cold and heat* stand uppermost. They are so *closely related to febrile paroxysms that a few remarks about them may not be amiss*. We all know that a *rapid rise of the temperature* is almost always *preceded by chills*. In such cases the contraction of the blood-vessels of the skin diminishes the amount of caloric emitted, a retention of heat takes place, and in consequence we have an elevation of the temperature, but if, on the contrary, the elevation of the temperature is slow and gradual, as in typhoid fever, *instead of chills we have chilliness*. Chills in the course of typhoid, however, may indicate a relapse or one of the many threatening complications, as intestinal hemorrhage. Moreover, *an intense sensation of cold* manifests itself in *involuntary shivering, chattering of the teeth, and shaking of the entire body*, which are constant motor attendants of fever, and particularly of *malarial fever*. The balance between the production and expenditure of heat is not violently disturbed by SULPHUR, but there is no doubt as to the constant alterations of these two processes, creating, not an acute paroxysm of true inflammatory fever, but *febrile states of secondary origin and infectious character, as well as vascular disturbances, with parasthetic phenomena of the thermogenic class*.

In alterations of temperature the student should always remember *the thermophobia* of SULPHUR; a *disagreeable sensation of heat* which appears suddenly and is one of its most characteristic symptoms. In the *sulphur-patient* we frequently notice this distressing phenomena. We find him *smothering or suffocating with heat, demanding more air and that the doors and windows be open*. Often again *the soles of his feet are burning so distressingly that he seeks a cool place for them, cast off the covers, and even put the feet out of the bed*. If a female, she may be tormented with *flushes of heat* all over the body. Distressing is likewise the *burning-heat on the top of the head*. Like the *heat*, the *chill* is a nervous phenomenon, but characterized not by restlessness and change of position, but by an *irregular trembling or shivering*, which may be limited to *chattering of the teeth*, from clonic

spasm of the muscles supplied by the motor part of the fifth nucleus, or may extend to the whole body, causing *severe shivering*. The *chill* is *provoked* by a *peripheral sensation of cold* (anæmia of the skin) and occurs at the onset of the fever. It is *during the chill* that the *rise of the temperature* takes place, occasionally, however, the *cold sensations* may alternate with *sensations of flushing and heat*, which are then referred to the vaso-motor system and get the name of *vaso-motor phenomena*. When the *fever is established*, the skin is usually burning, dry, occasionally moist, and the patient is annoyed by a *marked sensation of heat*. *Moisture* at this time is a favorable sign and if *crisis* takes place the skin becomes bathed in *profuse sweat* and the urine loaded with urates.

Fever alters also the *respiratory functions*, which in part, at least, should be regarded as a nervous phenomenon. Generally there is a certain proportion between the *increased frequency of respiration* and the *pulse-rate*, just as there is some proportion between the temperature and the increased frequency of the pulse. *Metabolism* is also thrown out of gear by fever, and the *secretory functions* are those more prominently affected. Finally, a *long continuance of the fever, without reaction*, often implies that the *nervous system* is profoundly involved, and that the *cerebral cortex*, with all its functions of perception, of motion, and of sensation, may become blunted and perverted in the highest degree. With other words that the *typhoid state* is near at hand.

A *résumé* of the normal sensations of SULPHUR can be conveniently made, as follows:

1. *Sensation of heat anywhere, but principally in the top of the head, in the chest, and in the soles of the feet.*
2. *Heat in the soles of the feet, or, cold feet, with burning soles; seeks a cool place for them, or puts them out of bed.*
3. *Sudden and frequent flushes of heat, all over the body, ending with a little moisture. Heat with much thirst or without thirst.*
4. *Dry heat in the morning when in bed. Heat in the afternoon mingled with chilliness.*
5. *Flushes of heat in the face, with feverish shuddering in the outer abdomen. Violent heat in the face towards evening, with chilliness over the back and hairy scalp.*
6. *Sensation as if warm air were blowing on the legs, in the evening.*

7. *Want of vitality, a sort of feeling of internal coldness. Heat almost constantly alternating with chilliness. Chilliness and coldness of the whole body.*

8. *Sensation of cold, chilliness and chills, without thirst (PULS.). Frequent internal chilliness, without thirst (PULS.).*

9. *Feeling of coldness about the head. A cold spot on the top of the head continually.*

10. *Feeling of coldness through all the limbs, without heat, in the forenoon. Coldness of the nose, hands and feet.*

11. *Coldness in the left lower limb. The feet are icy-cold in the evening. Coldness of the soles of the feet. Coldness of the feet all the time, cannot get them warm in bed.*

12. *Feeling of coldness for several hours, without chilliness; afterward heat with little thirst, and then slight sweat, with headache and faintness.*

13. *Chilliness with thirst, even near the stove, after dinner, until four o'clock. Shaking chills in the evening. Chilliness with creeping in the back, with shuddering, etc.*

14. *Distressing itching in all chronic eruptions, burning and even bleeding after scratching. Itching in the eyelids, ear, nose, vulva and anus, worse after scratching or rubbing. In the scalp, when warm in bed.*

15. *Itching and pricking in the skin, worse at night in bed; often with a sensation of soreness or heat, or bleeding, after scratching. Feeling of soreness in the folds of the skin, especially after scratching.*

16. *Voluptuous itching and tingling, with burning or soreness after scratching. Sensation of creeping on the skin, as of a mouse running over it (Aura epileptica). Itching of epigastric and hypogastric region, P. M.*

17. *Itching, smarting, burning, or feeling as from sand in the eyes and lids.*

18. *Itching, stinging and burning in the anus and rectum, also during stool. Sore feeling in the anus, which looks red and inflamed. Sensation of crawling-itching in the anus.*

19. *Itching, burning and galling on the pudenda. Sensation of soreness in the vagina, and corroding leucorrhœa. Burning in vagina, is scarcely able to keep still.*

20. *Disposition of numbness, especially of the arms and legs. The limbs go to sleep easily. Tingling in the arms and points of the finger.*

21. *Feeling of buzzing or vibration in the body, of knock-*

ing or throbbing in the outer parts; of tightness, stiffness and soreness of the external parts.

Among the most characteristic *visceral* or *internal* sensations of SULPHUR, we should particularly remember the following:

1. *Sensation of a hoop or band around the body (Girdle sensation).*

2. *Weak feeling in the epigastrium, from 10 to 12 noon. Can't wait for dinner.*

3. *Sensation as the vertebra were gliding one over the other, when turning in bed.*

4. *Sensation of motion in the abdomen, as if something would press out.*

5. *Sensation of movements in the abdomen, as from a fist of fœtus (CROCUS).*

6. *Sensation as if the bowels were strung in knots, worse bending forward.*

7. *Sensation as if the heart were enlarged. Of abdominal throbbing*

8. *Feeling in the abdomen as if it should be bandaged up, or supported.*

9. *Sensation of emptiness in the occiput, worse in the open air.*

10. *Feeling of contraction, of roughness, of fulness; or of heaviness in the inner parts, especially in the abdomen.*

11. *Feeling as of a lump in the inner parts of the body, or as though something alive was moving in the abdomen. (THUJA CROCUS).*

C. DISORDERS OF MOTILITY.—*Motion*, we all know, is the form of energy most accessible to observation and so it enters as a predominant element in our idea of life. The *essential cause of motion*, however, is ignored by many, even now. It is found in the change of form of the *protoplasm*, and in the change of position of its *elementary particles*. In fact, it is in the *protoplasm* where we must follow and localise the study of the *general phenomena of motion*.

It is in the inferior monocellular organisms, as the *amebæ*, the *rhizopodes*, or certain *cellular elements of superior beings*, such as the white corpuscles, muscular cells, etc., where we can observe with great facility the *movements of the protoplasm*. No matter how obscure the relations between the protoplasm and the exterior world may seem, they give rise to reactions, manifest by change of form and by a more or less considerable

development of energy, under the form of contraction and movement. There are *other manifestations of energy*, as the production of heat and electricity, which appear, likewise, as general phenomena of life. The production of heat, as the production of motion, is also one of the consequences of *protoplasmic activity*. Moreover, all living tissues, principally the muscles and nerves, are sources of electricity (*Electro-muscular excitability*).

The *disorders of motion of SULPHUR* are neither many nor very important. There is no *motor symptom*, I venture to say, which, by itself, could give a hint for the employment of this polychrest; and yet, it has been efficaciously given in *nervous crisis*, in *certain forms of epilepsy*, and in *senile and alcoholic tremors*, indicated here, of course, more by the general symptoms than by those directly referable to the affected parts themselves.

1. *The syndrome of motor phenomena produced by SULPHUR, comprises jerks and twitches in the whole body, rigidity of the limbs, tremor of the hands, general trembling, spasms and cramps, retraction and contraction of the muscles and tendons, and unsteady gait. Epileptiform convulsions.*

2. *Among the lesions of motility, properly so called, we should also mention the shivering, grinding of the teeth, and the shaking of the body.*

3. *The chief attitude of the sulphur-patient is that of repose and immobility, but he is worse while standing. Equally characteristic if not more so, is the stoop-shouldered manner of walking, which is a common symptom of senile decay and of predisposition to phthisis.*

4. *Other motor alterations allied to voluntary attitudes worthy to be remembered are the loss of equilibrium in the erect posture, and the unsteady and limping gait; the latter from muscular contraction and decurtation of the tendons (NAT. MUR.).*

With the analysis of the motor symptoms I finish the study of SULPHUR upon the *nervous system*, and in the next division of my work I shall endeavor to present, in as systematic and profitable manner as I know how, the powerful influence of this drug upon *vegetative life*, and upon the organic changes induced by the action of cells (*Metabolism*).

AN ECZEMA REPERTORY.

BY

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THE following repertorial collocation of drugs, symptoms and conditions prevailing in eczema may possibly be useful to others than the author. It might be enlarged, but, natheless, may have some present value:

ANATOMIC.

ABDOMEN: Kali carb. (and nipples, whole body).

ANUS, with fissure: Merc, præcip, rub. (and hairy parts).

ARMS: Arundo (and chest, behind ears; infants?) Calad (forearm; and genitals, chest); Sil. (and scalp, behind ears).

BACK, especially: Bry. (and whole body).

CHEEKS: Borax (and chin).

CHEST: Anac. (and neck, face; acute?); Arundo (and arms, behind ears; infants?); Calad. (and forearm, genitals); Fl. ac. (and neck, face, scalp); Jug. cin. (upper front).

CHIN: Borax (and cheeks); Carbo veg. (and face, legs, knees; vesicles); Cic. (and face, upper lip); Dulc. (and forehead, temples); Graph. (and behind ears, palms); Merc. (and scalp, limbs, whole body).

COVERED PARTS ONLY: Led.

EYES, ABOUT: Ant. t. (and nose, neck, shoulders, post-aural).

EYELIDS: Nat. mur.

EARS, BEHIND: Ant. t. (and nose, neck, eyes, shoulders); Arundo (and arms, chest; infants); Calc. sulf. (and scalp); Graph. (and chin, palms); Olean. (and occiput); Sep. (and flexures, vertex, occiput); Sil. (and scalp, arms); Staph. (and head, feet).

EAR, IN FRONT OF: Tereb. (children?).

FACE: Alumina (and scalp, limbs; hard crusts); Amm. m. (and across loins; fat, sluggish persons); Anac. (and neck, chest; acute?); Ant. c. (and joints; fat children?); Ars. (and legs, genitals; chronic?); Bell. (dentition?); Borax (and scalp) Calc. c. (and limbs, flexures; chronic?); Carbo v. (and legs, chin, knees; vesicles?); Cic. (and chin, upper lip); Clem.; Con. (and pubes, limbs; seniles, senile infants); Crot. t. (and

genitals, scrotum); Cycl.; Fluor. ac. (and scalp, neck, chest); Graph.; Hep.; Hyper. (and hands); Iris (and nose, lips, cheeks); Lyc.; Merc.; Nat. m.; Rhus (and hairy parts); Sars. (and nose); Sep.; Staph.; Sulf.; Viola tri.; Vinca (and septum nasi, head).

FEET: Staph. (and head, behind ears).

FINGERS: Hell. (right hand? dentition?); Rhus ven. (and upper limbs).

FLEXURES: Amm. c. (children?); Bry.; Calc. c. (and face, limbs; chronic?); Graph.; Led.; Merc.; Nat. m. (and genitals, eyelids); Sep. (and behind ears, vertex, occiput); Sulf. (and legs, genitals, posterior margin of scalp).

FOREHEAD: Dulc. (and temples, chin).

GENITALS: Arg. nit. (children? eating too much sweets?); Ars. (and legs, face; chronic?); Calad. (and forearms, chest); Croc. t. (and face, scrotum); Graph.; Hep.; Lyc.; Nat. m. (and flexures, eyelids); Nit. ac.; Petrol. (and inner thighs); Rhus; Sep.; Sulf. (and legs, flexures, posterior margin of scalp); Thuja.

HAIR: POSTERIOR BORDER OF SCALP: Nat. m. (and flexures, genitals, eyelids); Sulf.

HAIRY PARTS: Merc. præcip. rub. (and anus, with fissure); Rhus (and face).

HAND, BACK OF: Bov.

HANDS: Carb. ac. (and whole body); Graph. (palms; and chin, behind ears); Hyper. (and face); Nit. ac. (left ulnar surface).

HEAD: Staph. (and behind ears, feet); Thuja (extending from); Vinca (and face, septum nasi).

JOINTS, ABOUT: Ant. c. (and face; fat children?).

KNEES, BENDS OF: Bov. (and thighs); Carbo v. (and face, chin, legs; vesicular?).

LEGS: Amm. c. (between; and anus, genitals; children?); Ars. (and face, genitals; chronic?); Calc. c.; Carbo v. (and face, chin, knees; vesicles?); Chel. (and scrotum); Graph.; Lach. (climacteric?); Lyc.; Merc.; Nat. m.; Rhus; Sars.; Sep.; Sil. (and flexures, genitals, posterior margin of scalp); Sulf.

LIMBS: Alumina (and face, scalp; hard crusts); Calc. c. (and face, flexures); Con. (and pubes, face; seniles, senile children); Merc. (and chin, scalp, whole body).

LIMBS, UPPER: Rhus. ven. (and fingers).

LIPS: Aur. m. (and suprapubic; fat seniles); Piper nig., Cic. (upper; and face, chin).

LOINS, ACROSS: Amm. m. (and face; fat, sluggish persons).

MOUTH: Bov. (and nostrils); Mez. (around; and scalp).

NAPE: Caust. (and nostrils, nipples).

NECK: Anac. (and face, chest; acute?); Ant. t. (and shoulders, eyes, nose, post-aural); Clem. (and occiput); Fluor. ac. (and chest, scalp, face).

NIPPLES: Caust. (and nape, nipples); Bov. (and mouth).

NOSE: Ant. t. (and eyes, neck, shoulders, post-aural); Crot. h. (septal); Sars. (and face); Vinca (septum; and head, face)

NOSTRILS: Caust. (and nape, nipples); Bov. (and mouth).

OCCIPUT: Clem. (and neck); Oleand. (and behind ears); Sep. (and vertex, behind ears).

PUBES: Aur. m. (above the; and lips; fat seniles?); Con. (and face, limbs).

SCALP: Alumina (and face, limbs; hard crusts); Astacus (thick crusts); Bary. c. (fat, snuffly children); Borax (and face); Brom.; Calc. sulf. (and post-aural); Fluor. ac. (and face, neck, chest); Hyd. (frontal hair margin); Lappa (extending to face); Merc. (and chin, limbs, whole body); Mez. (and around mouth); Sil. (and behind ears, arms); Sulf. (posterior margin; genitals, legs, flexures); Sumbul (left side; infants).

SCROTUM: Chel. (and legs); Crot. t. (and face, genitals).

SHOULDERS: Ant. t. (and nose, eyes, neck, post-aural).

TEMPLES: Dulc. (and forehead, chin).

THIGHS: Bov. (and bends of knees); Cham. (children); Petrol. (inner; and genitals).

UMBILICUS: Merc. præcip. rub.

VERTEX: Sep. (and behind ears, occiput).

DERMATOLOGIC.

ACUTE: Acon., Anac., Canth.

BURNING: Amm. m., Ant. c., Apis, Ars. (intense), Bell., Bov., Calad., Calc. c., Calc. sulf., Carbo v., Carb. ac., Chel., Cic., Con., Fl. ac., Jug. cin., Nux jug., Petrol., Rhus, Sep., Staph., Thuja.

CHRONIC: Ars., Calc.

CRACKS: Ant. c. (corners of mouth); Calc. (and fissures);

Fl. ac. (after washing); Graph.; Merc. præcip. rub. (anal)
Petrol.; Piper meth.; Rhus ven. (finger-tips).

CRUSTS: Alumina (hard); Ant. c. (face; thick, yellow)
Astacus (scalp); Bary. c. (moist; scalp); Bov.; Brom. (scalp
cap); Calc. (thick); Caust. (nostrils?); Dulc.; Graph.; Hyper.
(yellow-green); Lappa (gray-white; scalp); Merc. (yellow
areolar inflammation); Mez. (about mouth; honey-like); Rhus
(thick, malodorous); Sars.; Sep.; Staph.; Sulf.

CRAWLING: Arundo, Bov. (scalp).

DRYNESS: Alumina; Ars.; Clem. (during waning moon)
Fl. ac.; Graph. (skin never sweats); Hyper. (at times); Kali
c.; Led. (unnatural); Nit. ac.; Piper meth.; Psor.; Sep. (of-
fensive); Sil.; Thuja (esp. covered parts).

EDEMA: Apis, Chel., Croc. t., Hell. (sudden); Rhus ven.
(upper lip).

EXCORIATIONS: Amm. c., Borax, Cham., Petrol.

ITCHING: Alumina (gnawing); Amm. c. (violent); Anac.
(intense); Ant. c. (violent); Ant. t. (< ev.; > open air);
Ars. (< first sleep); Arundo (intolerable); Aur. m., Bary. c.,
Bell., Bov., Calad., Calc. sulf., Carb. ac., Cham. (when sweat-
ing); Cic., Clem. (intense); Con., Croc. t. (excessive); Dulc.,
Fl. ac., Graph., Hyper. (excessive); Jug. cin.; Led. (gnaw-
ing); Lyc. (from warmth); Merc. (nocturnal; from warmth);
Merc. prot., Mez. (unbearable); Nux. jug. (< night); Oleand.
(gnawing); Petrol.; Psor. (< warmth); Rhus (nightly);
Sep.; Sil. (never at night); Staph., Sulf. ac., Thuja, Viola tri.
(nightly; intolerable).

MOIST: Bov., Calc., Calc. sulf., Carbo v., Carb. ac., Caust.,
Clem. (during crescent moon); Con., Kali c., Lappa, Lyc., Nat.
m., Petrol., Rhus, Sep., Sil., Sulf. ac., Viola tri., Vinca (offen-
sive).

PAPULES: Aur. m., Borax.

PIMPLES: Calc. sulf. (spreading); Sulf.

PRICKING: Acon., Bary. c., Sulf. ac., Thuja.

PUSTULES: Ant. c., Ant. t. (large); Croc. t. (two-story);
Iris, Merc. præcip. rub.

RAWNESS: Nat. m., Oleand., Petrol., Sulf.

REDNESS: Anac., Apis, Bell., Borax, Chel., Croc. t., Hyper.,
Nat. m.

ROUGHNESS: Hyper., Petrol. (hands).

SCALES: Ars., Cic., Hell., Kali c., Nit. ac., Piper meth., Psor., Sil., Thuja.

SECRETIONS (DISCHARGES): Brom. (foul odor); Calc. (yellow pus); Con. (sero-purulent); Graph. (corrosive, "herring-brine" serum; sticky discharges); Lappa (malodorous); Lyc. (abundant, malodorous); Merc. præcip. rub. (purulent); Mez. (profuse, excoriating); Nat. m. (corrosive, gluey); Nux jug. (greenish, stiffening); Oleand. (drops of serum); Petrol. (oozing after scratching); Sil. (greenish, putrid); Staph. (yellow, acrid, offensive); Viola tri. (yellow water or pus); Vinca (yellowish, forming brown scabs).

SENSITIVENESS: Anac. (to draughts); Bary. c. (scalp); Bell. (to touch); Bry. (scalp); Calc. sulf.; Oleand.; Staph. (scalp).

SMARTING: Aur. m.

SORENESS: Nat. m., Oleand., Petrol., Sulf.

STINGING: Acon., Apis.

TINGLING: Thuja.

VESICULAR: Anac. (small), Ant. t., Apis (large), Bov., Cad., Carbo v., Carb. ac., Con., Crot. h., Crot. t., Hell., Jug. cin., Nit. ac., Nux jug., Psor., Rhus (small yellow), Rhus ven. (fine; watery).

AGGRAVATIONS.

ALTERNATE DAYS: Alumina.

CLIMAXIS: Lach.

COLD APPLICATIONS: Amm. c.

COLD WEATHER: Dulc.

DAY AND EVENING (never night): Sil.

DRAUGHTS: Anac.

EVENING: Alumina, Ant. t., Caust., Graph. (and night), Iris (and night), Nux jug. (and night).

FRICTION (of clothing): Oleand.

HEAT OF FIRE, EXPOSURE TO: Bry.

HOT WEATHER: Bov.

MILK-DRINKING: Calc. c.

MOISTURE: Carbo v., Clem. (wet poultices).

MOTION: Bry.

NIGHT: Calc. sulf. (and rising in A. M.); Graph. (and ev.); Iris (and ev.); Merc.; Merc. prot.; Nux jug. (and ev.); Rhus; Viola tri.

OPEN AIR: Caust.
 OVER-HEATING: Jug. cin.
 POTATOES, EATING NEW: Alumina.
 POULTICES: Lyc.
 RISING IN A. M.: Calc. Sulf. (and night).
 SCRATCHING: Anac. (sometimes relieves the itching), Con.
 Mez., Petrol.
 SLEEP: Ars. (in the first).
 TOUCH: Bells., Brom., Bry. (scalp), Cic., Thuja.
 UNDESSING: Mez.
 WARM APPLICATIONS: Amm. c.
 WARM, ON BECOMING: Merc.
 WARM ROOM, COMING INTO: Hyd.
 WARM WEATHER: Kali c.
 WARMTH: Apis, Carbo v., Lyc., Psor.
 WASHING: Ant. c., Bary. c., Calc., Clem. (cold), Fl. ac.,
 Hyd.
 WEATHER CHANGES: Rhus.
 WEATHER, WET OR COLD: Rhus.
 WINTER: Psor.

AMELIORATIONS.

COLD APPLICATIONS: Amm. m., Apis.
 HEAT, EXTERNAL: Ars.
 OPEN AIR: Ant. c., Ant. t., Aur. m.
 RUBBING: Carb. ac. (followed by burning).
 SCRATCHING: Amm. c., Anac., Clem. (temporarily), Crot.
 t. (slight), Staph. and Sulf. ac. (the itching changes its loca-
 tion).
 WARM ROOM: Calc. c.
 WARM AIR: Dulc.
 WARMTH: Caust.

CONCOMITANTS, CONSTITUTIONS, ETC.

ABDOMINAL ORGANS, CHRONIC AFFECTIONS OF: Chel.
 ACIDS, DESIRES: Ant. t.
 APHTHOUS AFFECTIONS: Borax.
 APPETITE, VARIABLE: Lach.
 ASTHMA, ALTERNATING WITH: Calad., Dulc. (follows dis-
 appearance of eruption).
 BLONDES, OBESE: Graph.

BOILS, TENDENCY TO: Lappa.

BRUNETTES: Sep., Thuja.

CACHECTIC PERSONS: Carbo v. (with dyspepsia).

CHILDREN: Amm. c.; Ant. c. (fat); Ant. t. (want to be carried; cries if touched); Arg. n. (too fond of sweets); Arundo (young); Bary. c. (fat, timid); Bell. (dentition); Calc. c. (big-bellied blondes); Cham. (fretful, must be carried); Con. (senile children); Hell. (weakly, scrofulous; dentition); Sars. (very restless, much crying); Tereb. (eczema in front of ear).

CHILLINESS: Mez (constant over whole body).

CLIMAXIS: Lach.

COLD, TAKES, EASILY: Bar. c., Sulf.

CONSTIPATION: Alumina, Amm. m., Hyd. (with piles), Lyc.

CONVULSIONS, TENDENCY TO: Bell. (dentition).

COUGH, RATTLING: Ant. t.

DENTITION: Bell.

DIARRHEA: Crot. t. (painless, forcible, watery).

DROPSY, SUDDEN: Hell.

DRUNKARDS: Led.

DYSPEPSIA: Carbo v. (in cachectics).

ERUCTIONS: Crot. h. (sour, acid).

FACE-ACHE AND ASTHMA: Dulc. (follow disappearance of eruption).

FAILURE OF OTHER REMEDIES: Merc. prot.

FAT, SLUGGISH PERSONS: Amm. m.

FEVER, WITH: Acon.

FEET, COLD: Calc. (as from damp stockings).

GASTRO-BILIOUS TROUBLES, WITH: Iris.

GLANDS, AXILLARY: Lappa (swelling and suppuration).

GLANDS, CERVICAL, SWOLLEN: Bar. c. (and tonsils); Brom. (hard); Calc. c.; Led.; Sil.; Viola tri.

GLANDS, SWELLING AND INDURATION: Clem (painful), Con., Merc. Prot.

GLANDS, SWOLLEN: Astacus, Merc. pr. rub., Dulc. (near the eczema).

GLANDS, INFLAMMATION, TENDENCY TO: Merc.

HAIR, FALLING OFF: Bar. c., Calc.

HEMORRHOIDS: Hyd. (with constipation).

LACTATION: Sep. (ring-like eruptions).

LASSITUDE, GENERAL, ESP. ABOUT JOINTS: Bov.

LIVER, PAIN IN REGION OF: Chel.

MENSES, ERUPTION PRECEDES THE: Dulc.

MENSES, TENDENCY TO DELAYED: Graph.

MERCURY, AFTER ABUSE OF: Aur. m., Nit. ac. (syphilitic ulcers).

MILK, AVERSION TO: Ant. t.

MOTION, DREAD OF DOWNWARD: Borax.

NAILS, BRITTLE: Fl. ac.

OBESE SENILES: Aur. m.

PAIN, RIGHT SUBSCAPULAR: Jug. cin.

PALMS, BURNING IN: Lach. (and soles).

PHTHIRIASIS: Vinca.

PLETHORIC PERSONS: Acon.

PREGNANCY: Sep. (annular eruptions).

PULMONARY AFFECTIONS, INCLINED TO: Kali c.

RHEUMATICS: Led.

RHEUMATIC-GOUTY: Caust.

SCAPULA (RIGHT) STITCH-LIKE PAIN UNDER: Jug. cin.

SENILES: Con. (and senile children); Aur. m. (corpulent)
Nit. ac. (dark complexion).

STOOLS, CLAY-COLORED: Astacus.

SUMMER, DISAPPEARS IN; REAPPEARS IN WINTER: Psor.

SUPPURATION, EASY: Borax, Calc. sulf., Cham., Petrol
(spreads, ulcerates).

SWEAT: Graph. (difficult); Merc. (easy); Sil. (offensive
feet, genitals); Thuja (honey-odor; on uncovered parts).

SYPHILITIC TAINT: Merc. prot.

TASTE, BITTER: Chel. (when not eating or drinking).

URINARY TROUBLES, WITH: Canth., Sars., Tereb.

URINATION, URGING TO: Arg. n.

URINE, PAINFUL RETENTION OF: Crot. h.

URINE, SCANTY, HIGH-COLORED: Apis.

URINE, SMELLS LIKE CAT'S: Viola tri.

VERMINOUS CRUSTS: Viola tri., Vinca minor.

ANTIPYRETICS.—How many of our boasted and much-used antipyretics act simply like an increased dose of the toxin, by depressing the vital resistance and preventing the temperature reaction? I have no hesitation in naming two—aconite and veratrum—and expressing grave suspicions of a third, namely, the whole group of coal-tar products. The man who gives aconite or veratrum in a case of pneumonia, typhoid or appendicitis is pouring a second poison into the body of his unfortunate patient to suppress the resistance which it makes against the first. They make the patient more comfortable and the doctor much easier in his mind for the time being, but what of the ultimate outcome? They lower the temperature, slow the pulse, but it is much after the same fashion that a blow on the head with a club will quiet the struggles of a man resisting arrest, or a dose of opium will relieve the fatigue of a soldier on the march.—Woods Hutchinson, *Monthly Cyclopaedia*, January, 1908.

SCIENTIFIC MEDICAL PRACTICE THE BASIS FOR PROFESSIONAL UNITY.

B. FRANK BETTS, M. D., PHILADELPHIA, PA.

(Read at a meeting of the Hahnemann Club and ordered to be printed.)

According to the general acceptance of the terms, Scientific Medical Practice must conform to the rules or principles of science. Science embraces a complete knowledge, comprehension or understanding of truths or facts confirmed by evidence, so far as it can be obtained from knowledge available at the time. Art is the application of the principles of science. The practice of our profession is an art and reaches its highest degree of usefulness to humanity when it is based on correct scientific principles which appeal to reason and are confirmed by experience. After careful study and observation a new system of medical practice was publicly announced more than a century ago, and the success met with in its practical application for the cure of disease was such as entitled it to be recognized as an important method or department of therapeutics; but as its principles were the antithesis of those of the old school, and as pre-existing customs are very firmly adhered to in European countries, it did not receive cordial approval. From the standpoint reached by modern science, we may now claim that Hahnemann was gifted with the most wonderful conception of the facts governing health and disease, but as he did not have at command the true scientific explanation for the principles he enunciated, his reasoning appeared ambiguous to those who did not give his writings the most careful consideration. But the evidences of the efficiency of this system of medical practice accumulated, and the experiences of a century have added such a weight of testimony in its favor that we may claim for it at least equal efficiency with any other system of therapeutics. History has again repeated itself for the practical application of many valuable scientific discoveries has preceded their explanation. The magnetic needle was utilized by the Chinese 2600 years before the Christian Era, yet after more than 4000 years we fail to scientifically explain the principles which direct its long axis uniformly toward the North. We are applying the law of gravitation almost constantly in our every day life without being able to explain it scientifically, but intelligence enables us to discover and make

use of many of nature's laws long before we understand them correctly, and during that time we are liable to misapply them or draw wrong conclusions from our conception of them.

In contrast with the practice of the earlier homœopathic physicians, we now make use of the catheter to evacuate the over-distended urinary bladder. Use rectal enemata or purgative medicines to unload the clogged intestines; apply the knife for the evacuation of pus accumulations; heat for the relief of pain; cleanse the infected wound by means of antiseptic solutions, and apply sterile dressings to exclude the germ laden air. We lower the head of the patient in syncope or when he suffers from shock after operations. We resort to the Fowler elevated truck position for patients in whom we wish to drain the pus infected peritoneal cavity into the less vulnerable vesicorectal space. We fill the vascular system with a warm saline solution by enteroclysis, hypodermoclysis or transfusion when occasion requires, and if it is true that quinine destroys the plasmodiae malariae in the blood without harm to the patient, suffering from malarial fever, we feel justified in using it upon scientific principles; but we still remember that all these rational methods of treatment are but an introduction to a still more important scientific means of cure, as it is incumbent upon us to inquire into and treat the cause for the retention of urine in the bladder; the origin or cause for the pain we try to relieve by heat, or the pus we evacuate, and it is our province to apply treatment for the damage done by germs in the infected wound, or the infection of the peritoneal cavity. The anemia of the brain is one of the most important conditions to claim attention in syncope or shock when the great sympathetic nervous system seems almost paralysed after a prolonged operation, but it is not the only condition to be attended to. The patient requires pure fresh air, the application of external heat—appropriate medicine or stimulation, nourishment and the psychologic influence derived from confidence and hope, for we can apply medicine for the alleviation of suffering and treatment for the cure of disease, yet there is a human soul in every patient and disease is influenced by mental conditions, which should claim serious attention. There is something more than the plasmodium to consider in the treatment of malarial fever, for these may be found in some apparently healthy individuals without evidences of malarial toxemia in whom the palpable effects that constitute the

disease have not developed. Homœopathic treatment meets scientific requirements when it is based upon a consideration of all these conditions. According to the advice of Hahnemann, we must first obtain the patient's account of the disease and his symptoms, and the observations of those who are with him, and supplement this information with a most thorough investigation of the patient's disease by all the modern scientific methods available. Having now considered all the evidences of disease and their significance we apply the remedy capable of awakening an antagonism which in turn assists the curative action in the living organism, for the reason that its influences are similar to those we find existing in the patient in whom curative reactions against the effects of disease are a part of the vital principles of life. We do not rely upon the primary (depressing) action of drugs, but use them to awaken a secondary action in the organism, corresponding to the natural reaction (defensive reaction) of the system, by which the cure of disease is effected, as demonstrated scientifically in the Opsonic treatment of disease.

It is this scientific system of therapeutics that should form the basis for professional unity. We have entered an era of more rigid scientific therapeutics than has ever been known before. Empiricism with its theories and opinions must give way before the strong light shed upon medical practice from scientific investigation. Wright's Opsonic therape explains a great problem in homœopathic therapeutics. One of America's greatest surgeons, Dr. Mayo, of Rochester, Minn., has said: "The ability to control the opsonic property of the blood is the next great advance in surgery and medicine." Prof. Goldschneider of Berlin says: "Experience teaches that it is within our power to force upon the organism, curative reactions, of which it is not of itself capable—reactions identical with or intimately related to the natural curative reactions. The most natural therapeutics—those most in conformity with nature—consist in the use of specific remedies in the sense that these correspond to the substances produced by natural healing processes, or that they cause the production or heightened action of these defensive substances." Theobald Smith of Harvard says: "There is needed but a relatively *slight* impulse at the right time to establish a resistance, which promptly suppresses the causative influences of disease." We must admit that every drug is in itself capable of exciting a vital reaction in

direct opposition to its own primary action, and that the attenuated drug may act in a manner similar to the attenuated bacillus used in Opsonic therape. Prof. Von Behring says: "Pasteur has traced the origin of immunity to a principle which cannot be better characterized than by Hahnemann's word 'Homœopathy.'" Dr. R. C. Cabot of Harvard remarked: "The use of tuberculin is a form of vaccination which illustrates better than any example known to me, the approval of homœopathic principles within our (Allopathic) School." There can be no plausible reason assigned for physicians to refuse to investigate and adopt a successful method of therapeutics, if it is based upon rational scientific knowledge, and men who are actuated by a common desire to cure or relieve human suffering should be willing to affiliate and co-operate with each other, but "this will not be effected by those of one school who adhere to the old-fashioned massive doses, nor their "liberal" homœopathic imitators of the other school." Neither will it be the members of either school, whose easy going methods prompt them to prescribe palatable proprietary panaceas, but it is from the scientific deductions of members of both schools who are actuated more by principle than profit, that the unity of the profession will be effected. The trend of scientific discovery in the past leads to this conclusion, as we shall see. Near the time of the promulgation of the Homœopathic methods Jenner gave to the world the results of his observations and experiments upon smallpox, and the production of an artificial immunity against the disease by the introduction into the system of what we may believe to be an attenuated form of the causal agent.

Pasteur supplemented Jenner's work in the endeavor to induce prophylaxis by the introduction (mostly in an attenuated form) of the bacterial agents of disease or the products derived from them, and Koch in 1890 was the first to attempt the cure of an infection by a specific remedy, derived from the infecting agents—the cure of tuberculosis by Tuberculin. He failed in this effort at that time, because he did not reach the conviction as Hahnemann did in a similar line of investigation, that the agent must be used in very minute doses. Trudeau of Saranac Lake begins the treatment of his cases of tuberculosis at the present time with a dose of the one-ten-thousandth of a mg. if they are afebrile. If they are febrile cases they get the one one-hundred-thousandth of a mg. After Koch's

theory was promulgated, Metchnikoff found that the successful resistance of an animal against bacterial effects, depended upon the power of certain white blood corpuscles to destroy these invading germs by ingesting them, or incorporating them with their own structural elements. The cells capable of doing this work were named "phagocytes" (germ-destroyers)—the process of destroying germs, by the cells, was termed "phagocytosis." This paved the way for Wright's discovery of the opsonic power of the serum of the blood—or the presence in the blood of an influence, which acts upon the bacteria, to prepare them for the destruction, to be accomplished by the phagocytes—germ destroyers.

are Opsonins—from opsono: I cater for, I prepare victuals for—substances which modify micro-organisms in a manner which renders them an easy prey for phagocytosis. The opsonins are contained in the fluid portions of the blood current (the serum and plasma) and they exercise their influence by modifying the germs, and not by exciting a direct stimulating effect upon their destroyers—the white blood cell phagocytes.

There are other properties or qualities developed in the blood to a high or a low degree that add to its protective efficiency, in coping with germs and infectious principles; one of these qualities produces immobilization and conglomeration of these micro-organisms and is known as "agglutinins."

The exact origin of these influences which are known as the opsonic influence, and the agglutinating influence is not definitely determined but they are dependent upon and are a part of the phenomena of life. They fail to act in moribund cases. They are dependent upon what Hahnemann termed the vital principle—the dynamic spirit-like vital force or autocracy. He says: "During healthy conditions this force rules pre-eminently"—which means that when the health-maintaining forces are present in their normal quality they maintain what we call immunity from the influences of disease.

The extent of the modification of the condition of the germs that is effected by the presence of the opsonic influence in the blood is the opsonic index of that person at that time. The opsonic power of healthy persons is nearly the same and does not vary from day to day, so long as they remain in health.

The opsonic power of persons suffering from certain diseases may be either greater or less than the average—a high opsonic index, or a low opsonic index.

It is possible to make an accurate test of this opsonic index, by counting the number of germs found to have been ingested by the white blood corpuscles (phagocytes) in a particular individual, and comparing this with the normal phagocytic index obtained from the average, found ingested by the corpuscles of a number of persons in good health.

If above the normal, we have a high opsonic power or index. If below the normal, we have a low opsonic power or index.

The standard for the individual is not dependent upon the *quantity* of the opsonic influence as we might term it, for Wright and Douglass have found that normal serum may be diluted 24 fold, with only a comparatively slight lessening of its opsonic power, when compared with undiluted normal serum, and that opsonin is not formed in the blood but is likely formed by, or at least influenced materially by, muscular and subcutaneous cellular activity.

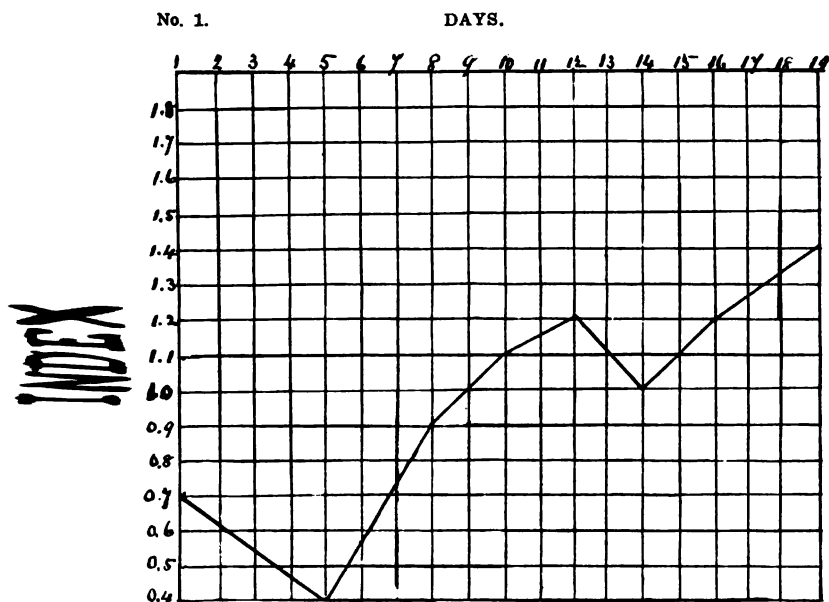
Hence the transfusion of a warm saline solution does not inhibit the *quality* of the opsonic power but as this originates within the cellular elements of the tissues, it tends to maintain or increase this power as evidenced by clinical experience.

It has been proved that the opsonic index is below normal, for that individual, in many cases *before* the evidences of any infection are apparent, therefore it is reasonable to infer that a low opsonic index, for an individual predisposes that individual to disease, which is corroborated also by clinical experience, as an increase in the opsonic index favors the elimination of the disease.

It is possible for the opsonic index of the blood to be increased in two ways: By *active* and *passive* immunization. Active immunization, which interests us at this time, may be effected by the injection of very dilute products of killed bacteria—or bacterin, as the product is called—which is believed to induce the animal cells to produce the opsonins we find in the serum. The therape of the opsonic method or bacterin therape consists in the injection of killed germ products subcutaneously, this product corresponding in kind but not identical with that which is capable of producing the disease, with the intention of increasing the opsonic index of the blood and thus favoring increased phagocytosis (germ destruction).

As a result of such an injection certain definite changes in the opsonic index occur. First there is *decreased* opsonic power, then a gradual rise or *increase* in this opsonic index or

power; therefore we have the first decreased or *negative* phase of the opsonic index, and then the second or *positive* phase. It seems likely that our homœopathic remedies act in a very similar manner.



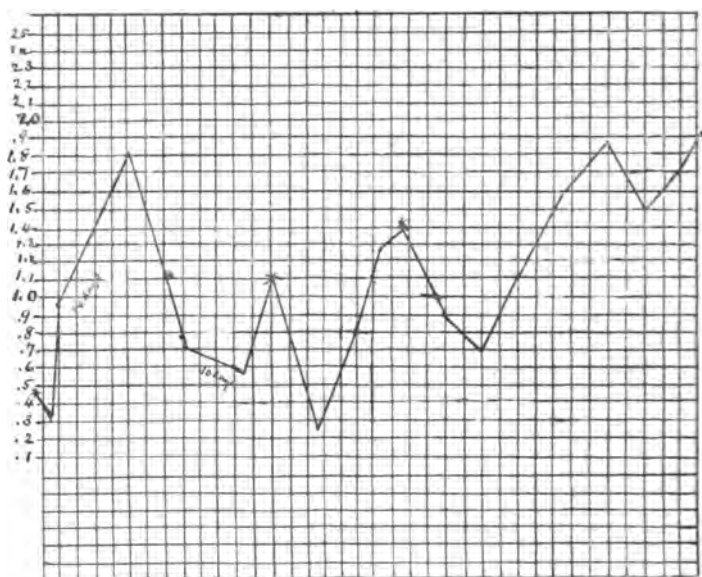
The Opsonic Index Chart. From "The Opsonic Method of Treatment," by R. Allen, M. B., B. S.

The negative phase is more or less accentuated and prolonged, according as a larger or a smaller dose of the bacterin (or vaccine as it is also called) is inoculated. In the case of a large dose, the negative phase may be marked by temperature reaction and constitutional disturbance. In the case of the smaller dose there may be no palpable or *clinical* evidence of the development of this negative phase, *but it can be demonstrated to exist*. So that the large dose with its consequent constitutional disturbances is no index of subsequent efficiency, for what we are striving for is the development of just enough of the negative phase to excite the most powerful manifestations of the vital reaction which causes the positive phase—for this positive phase is characterized by an increase of the anti-bacterial power in the blood, which changes the bacteria for greater phagocytosis, which of course means increased ability to cope with the effects of toxic agents.

That curve whose trace sets forth these changes in the blood runs to a sharp peak and sinks away, first comparatively rapidly, and afterwards more slowly, to be maintained above the normal opsonic index for some days or weeks, perhaps.

There is associated with the positive phase in many cases a sense of physical vigor and a very pronounced feeling of well-being (characteristic of a curative effect). If we use repeated injections of the material during the negative phase or too large doses, we depress this phase more and more and as we might expect the reaction—the positive phase—is not increased but rather diminished below the former single dose reaction, because the vital force, the dynamis, has been overwhelmingly depressed.

No. 2. CHRONIC GLEET.
PERSISTENT NEGATIVE PHASE.
June. July. August. Sept. Oct. Nov.



A case of seven years' standing. The index, .35, indicating exhaustion of the protective mechanism. Yet splendid response followed first injection, the index rising for 14 days to 1.8, falling as rapidly, however, to 0.7. Second treatment less satisfactory, as in 10 days index reached .05, to recover to 1.1 on 16th day when the third injection was given; this was premature and caused fall to .35 lower than at any previous time, but reaction set in and reached 1.4 when a fourth injection resulted in cure. (From the Opsonic Method of Treatment.—Allen.)

The necessity for the employment of the smallest dose in every case that will elicit a satisfactory response, is very apparent, and the repetition of the dose only, when the effect

of the preceding inoculation *is passing off* is just as important.

We now have explained to us the principles governing the resistive reaction of the vital force, so strenuously advocated by Hahnemann, and we have explained to us the necessity for the small homœopathic dose and its careful repetition, especially in chronic cases.

Hahnemann said: "According to the principles of homœopathy a medicine is selected which possesses the power of extinguishing a natural disease, by means of the similitude of its alterative qualities. Such a medicine is administered in simple form, at long intervals, and in doses so fine as to be just sufficient to obliterate the natural disease through the reaction (positive phase) of the vital energy."

Again, (quoting Hahnemann): "Cures result only from the counteraction of the vital forces against some medicine chosen (and introduced) according to correct principles. Curative effects are speedy and certain in proportion to the energy of the vital force of the patient, hence homœopathy avoids everything in the slightest degree enfeebling." Further, he remarks: "We apply the curative agent that is capable of acting upon the vitality (as every medicine is capable of doing, as demonstrated by the provings) in the direction of a derangement, more or less, of the vital force which is termed its primary action. To this action the vital force endeavors to oppose its own energy. This resultant action is a property, is indeed an automatic action of our life-preserving power, which goes by the name of secondary action." (Organon, section 63).

It will be claimed that the therape of the opsonic method, or bacterin therape, is *similar* in principle to the homœopathic therape, but not identical, and the relation between isopathy and homœopathy may be again discussed, for the opsonic therape supposes the therapeutic agent to be of the same origin as the infection, whilst the homœopathic remedy is of distinctly different origin, but it has been demonstrated that some diseases are of multiple origin, and that it is not always possible to determine the exact germ agent that causes the disease in every case, nor the agents which have the preponderating influence—when many are found—and it is a physical impossibility to apply the identical opsonic agent for each allied disease engendering germ, and that the whole opsonic machinery of immunization becomes hopelessly deranged when a number

of opsonic agents are administered, and it has also been demonstrated that the bacterin remedy, whilst acting with better effect upon its own single specific bacterial infection, is capable of generating—in some cases at least—an opsonin for other germs, which are not of its own family, so to speak. And there are good reasons for supposing that there is in the normal organism a single body, or *preopsonin*, from which, under appropriate stimulation (the *samilia*), there can be split off particular opsonins for the several infective principles, and thus the conclusion may be reached that the non-identical homœopathic agent may be capable of increasing the opsonins for several sources of infection by virtue of a similarity in its pathogenesis to the symptoms induced by the infection in the patient, from a poly-germ influence, and that a number (two or more) homœopathic remedies may be required to be used consecutively in order to complete the cure in such cases.

There is an important field open before us, for rigid investigation along these lines in order to develop a strictly scientific system of cure. Such a system will be the handmaid of surgery and the physical or mechanical treatment of disease by such means as massage, electricity, vibratory and passive exercise apparatus, the leucodescent lamp and Roentgen rays.

It is beyond the domain of palliative treatment for incurable cases, and the legitimate use of drugs in massive doses, to secure physiological effects in order to overcome mechanical obstruction—as when we employ *Digitalis* in patients suffering from cardiac dropsy. It is a system of practice which aims to make use of the *curative action* of remedial agents. As such a system must be at least correlated, if not identical, with our system of practice, this is not the time for us to accept professional affiliation with the old school at the price of a renunciation of the principles of homœopathy in the treatment of disease.

SCIENTIFIC MEDICAL PRACTICE is the basis for Professional Unity.

TWO CASES OF TUMOR OF THE CENTRAL NERVOUS SYSTEM.

BY

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of New York, at Albany, Feb. 11, 1908.)

IT is my intention to present, as briefly as possibly, the clinical history and anatomical findings of two cases of tumor of the central nervous system.

The first case to be considered is that of A. P., who was first admitted to the Middletown State Homœopathic Hospital, February 8, 1887, aged 37 years. He had been very intemperate up to three years previous to admission, when he is said to have suffered a sunstroke; after that he drank no intoxicants. During that period he was unable to attend to his business as agent, had frequent irritable outbreaks, and developed delusions of persecution; he said detectives were after him to put up a job on him. He slept poorly.

On admission he had the appearance of a chronic inebriate. He complained of considerable vertex headache and laughed foolishly a great deal. During his stay at the hospital he had frequent short periods of anger and frequent severe headaches. He would do no work and refused to see the members of his family who called upon him. He did not change, and was discharged unimproved Oct. 31, 1889, and was taken to the Suffolk County Hospital. He remained at that hospital until October 3, 1892, during which period we know nothing of his condition; he was then readmitted to Middletown. On re-admission, the patient was said to have been in much the same condition as when he left, but was somewhat stronger physically.

During the remainder of 1893 he was cranky and fault-finding, refused to do any work, but played cards much of the time. During 1894, '95 and '96 he continued much the same, but worked well most of the time. He thought himself a detective, with authority to investigate the hospital and to discharge whom he pleased. In 1897, '98 and '99 he was noted at various times to have been irritable and domineering; he refused to work, saying he owned the place, and attempted to order

others about. He was apparently in good physical health. In January, 1900, he began to complain of loss of power in his hands, and was very indolent, though eating and sleeping well. Later in the year he thought his hands and feet were "shrinking up," complained of cramps in the calves of his legs and in the epigastrium, and of facial neuralgia. In January, 1901, a prickly sensation in the throat was added to the symptom picture, and in February he suffered with cramps in the left arm. He continued irritable and fault-finding. His vegetative functions were normal. Up to this point there was little that might have suggested a proper diagnosis. But early in 1902 cramping pains in the legs and thighs appeared, worse on the left side. He said his nerves "puckered up." His gait became shuffling; he was weak in the knees, and fell when he stooped forward. The left arm could not be fully extended at the elbow because of contractures, and supination of the forearm was incomplete. The paralysis of the legs progressed so that late in the year he could scarcely walk unassisted. He could feed himself, but had to be helped to bathe and dress.

Early in 1903 he was put to bed. He complained constantly of drawing, cramping pains over the whole left side, and in both arms and legs. Occasionally he soiled the bed, and late in the year became quite helpless and was unable to turn in bed or to feed himself. The principal points of an examination made in November, 1903, were: A drawing pain in the back, aching pains in the arms and legs, with numbness, a drawing sensation at times, a general atrophy of the muscles of the legs and feet, inability to move voluntarily except to raise the right arm about three inches from the bed. The radial, ulnar, triceps, biceps, pectoral and palmar-flexor tendon jerks were all easily obtained. The muscles of the legs were atrophied and very soft; the knee jerks were exaggerated, the femoral jerks were active, and a decided clonus was obtained in each ankle; a double Babinski reflex was demonstrated, more marked on the left side; the right leg and thigh could be flexed and moved about passively to a considerable extent, but the thighs could not be flexed on the trunk. No plantar, cremasteric, abdominal, or epigastric reflexes could be obtained. The head was not involved.

This condition continued without much apparent change until May, 1904, when he began to have difficulty in swallowing. His voice became thin and quavering; the urine dribbled

and he was unconscious of the passage of stools. The muscles of the legs and arms twitched involuntarily at times, but fibrillary twitching was never prominent, perhaps not noticed because the patient was always very well nourished. June 19, 1904, he was perfectly conscious. Examination revealed anesthesia to pin pricks over the entire body except the head, face, and chest, and a small area on the inner surface of the left calf. These areas were not more carefully mapped out because of the patient's irritability and lack of co-operation. June 23, 1904, he became unconscious shortly after eating breakfast, when he had appeared as usual. He made no sound or movement, the pulse became rapid and irregular, he did not become cyanosed but died quietly in about two hours.

To summarize briefly, we deal with a patient who had been intemperate until 34 years old, when he suffered a sunstroke, and drank no more. After that he developed paranoid ideas necessitating his confinement in a hospital at 37 years of age. At 50 the first symptoms of tumor of the cord developed, though this diagnosis could not have been established until late in 1903, about three and one-half years after the appearance of the first symptoms. Death occurred four and one-half years after the appearance of the first symptoms which may be ascribed to the tumor.

At autopsy the body was found to be very well nourished, but with decubitus gangrene over the sacral prominence. There was a general atrophy of the muscles of the hands and of the feet and legs. There were contractures of varying degrees in practically all of the joints of the arms, hands and legs. The feet were at right angles to the legs; the head sat squarely on the shoulders. These positions remained practically the same as before death. The heart, kidneys, liver and spleen all showed some sclerotic changes, and the lungs were slightly congested, with dense adhesions to the parietal pleura at the apices.

The brain and cord were removed and sent to the Pathological Institute for examination, and the data for the following report was obtained from Dr. Meyer's report, and from the specimens.

There was a distinct meningitis involving the meninges of brain and cord. This was attributed to a terminal infection, probably from the decubitus gangrene. In the brain no cortical lesions were noted, but the frontal tips were atrophic in appearance, with small convolutions and wide interspaces.

The cerebellum was symmetrical. The whole cervical cord was much enlarged, the upper segments being most affected, especially the third and fourth. It was impossible to make an accurate determination of the segments of the cord owing to the obscuring of the nerve roots by the exudative meningitis.

In sections taken through the third cervical segment (C^3) representing about the middle of the tumor growth, one finds centers of growth around the blood vessels; that is, the developing blood vessels afford a core of radiation for the gliomatous cells to grow upon, forming cell lobules or cords, depending on whether they are cut in cross or longitudinal section. The tumor mass is surrounded at this level by a narrow marginal rim of much disturbed tissue, the remains of the original spinal cord. At the level of the fifth cervical segment (C^5), the tumor mass occupies a relatively small area near the center of the cord. The gliomatous cells are more embryonic than in the central portion. The original cord tissue at this level is very much disturbed, especially in the posterior columns, and the ventral horn cells are more or less dispersed and show a variety of alterations. In sections through the sixth cervical segment (C^6), the tumor mass has disappeared, although in the region of the central canal the cells are more abundant, and are spread over a larger area than usual. The posterior and lateral columns are greatly disturbed, and the ventral horn cells are in the same condition as in the fifth segment. In the seventh segment the condition resembles that in the sixth, but is less severe, and in the eighth the relations of the cord are fairly well preserved. The ventral horn cells, however, show the same changes as are seen above; there is some sclerosis in the region of the lateral and ventral portions of the pyramidal tracts, and there is considerable thinning of the fibres in the posterior and lateral columns. Sections taken at various levels in the remainder of the cord show practically the same changes as the eighth cervical segment, namely, a variety of alterations in the ventral horn cells, sclerosis in the pyramidal tracts, fibre degeneration in the pyramidal tracts and in the margin of the ventro-lateral columns.

To summarize, we have an apendymal glioma, fusiform in shape, extending from the first to the fifth cervical segments inclusive. It occupies the central portion of the cord, and, at the second, third and fourth segments, it has reduced the original cord to a mere peripheral rim of more or less shattered

fibres. There is a secondary degeneration of the fibres of the pyramidal tracts and in the ventro-lateral columns. The ventral horn cells show a variety of changes at all levels, and there is a meningitis present at all levels.

The second case is that of a woman (M. T.), admitted to the Middletown State Hospital, March 6, 1905, aged 54 years. Six years previous to admission she began to use laudanum because of severe attacks of facial neuralgia, and she continued to use it. She became irritable and restless, careless of her house and of her person, and friends state that this was the cause of the husband's desertion in 1902. Just before he left her she became very despondent, and once told her daughter she had taken an overdose of morphine in an attempt to take her life. She had severe fits of weeping when alone, became suspicious of her children, and finally became entirely unable to care for herself. She slept poorly at night and during the last six months prior to admission became very filthy. After once falling asleep it was very difficult to arouse her. She had a ravenous appetite.

On admission to the hospital she was very obese. She complained of her limbs being stiff and tired, saying, "They are achey and mean, Doctor. I don't feel good." . . . "My back hurts me so much I think I'll go crazy, such a queer feeling." She smiled as she said these things. Her memory for the immediate past was very defective. There were no fibrillary twitchings or tremors.

During March, 1905, she slept a great deal, falling asleep in her chair, but denied doing so when awakened. She had an inordinate appetite. She was childishly pleased over everything that took place. In the latter part of the month, frequent urination was noted, and in April this increased, and untidy, uncleanly habits appeared. In July she was asking the same questions over and over, and was untidy and uncleanly; the polyuria continued. August 21st, 1905, the patient walked to the toilet, but commenced to vomit when she came back to her bed and complained of pain in her head. The next morning she was tremulous, and fell in walking to the water section, and though able to walk, was not able to rise in bed after this. Her voice was thick, the right pupil did not react to light as quickly as the left. Following this period the patient was more lethargic, the memory defect was more pronounced and the excessive appetite and polyuria continued. About this time the eyes were

examined, and vision of 15-80 was recorded. This could not be improved by lenses. Retinoscopy developed nothing of interest.

In January, 1906, she was sleeping much during the day. On January 9th there was another episode of nausea and vomiting with increased drowsiness and great increase in the memory defect following. She could hardly remember from one moment to the next. The tremor and unsteady gait gradually increased and May 9th, 1906, she fell to the floor in attempting to pick up a newspaper. In July, examination revealed greater weakness on the right side than on the left. She dragged the right foot in walking, the face was besotted, the left eyelid drooped slightly, the right pupil was somewhat larger than the left, but both reacted slowly to light. The patient was in an almost comatose condition; her speech was very thick. During August she remained in about the same condition; was entirely disoriented, was unable to feed herself, and soiled her bed. September 2d, the patient seemed the same as usual until she ate her breakfast, which was vomited immediately. She continued to vomit at irregular intervals during the day and at 4.45 P. M. became stuporous; both pupils were dilated and did not react to light. The respiration rate was increased to 30 but the temperature was normal. This condition continued until 7.30 P. M., when she died, 18 months after admission to the hospital.

At autopsy the blood vessels were found to be moderately sclerotic. There was an early acute parenchymatous nephritis. The meninges of the brain were apparently normal, and there was little edema. The brain weighed 44 ounces; the convolutions were soft and rounded and the medulla, pons and cerebellum appeared normal to gross examination. Just behind and beneath the optic chiasm was a tumor about the size of a small orange. A portion of this, about one inch in diameter and projecting about three-eighths of an inch, was presenting on the base of the brain behind the chiasm. The optic tracts were made very prominent by being forced outward by the tumor mass, but were apparently little involved.

Complete reports as to the character of the tumor cannot now be given, as the extended examinations have not been completed.

TRAUMATIC INSANITY.

BY

FREDERICK C. ROBBINS, M. D., GOWANDA, N. Y.

TRAUMATISM, which has such a definite meaning, it seems should show definite symptoms and results, but on account of the uncertainty which surrounds it, it is the more worthy of our consideration and of deeper thought and attention than this paper will warrant. The susceptibility of the brain to development of insanity from traumatism is governed by the susceptibility of the individual, either congenital or acquired. It is necessary to eliminate the beliefs of the family that the trauma is the sole cause of the psychosis and to go back of such belief, searching the family history carefully, in order to ascertain the predisposition of patient.

Trauma may be effective in several ways, the blow or injury itself causing fracture, in which case the unevenness of the base of the cranium is the probable reason for local contusions which are seen in patients falling and in epileptic convulsions chiefly at tips of temporal lobes, and at the base of the frontal lobes. Lacerations of the brain itself by the fracture of the skull are said to be produced at points at which tissues of different specific weight meet. Secondly, the shock to the nervous system resulting from injury to cerebral tissue which is not dependent on fracture of the skull. Thirdly, hemorrhage forming clots which are often found at autopsy when there is no fracture and which result seriously, the effects and symptoms differing as to the location of the clot. According to Tuke, in bruises of the substance of the convolution small rounded clots are seen in the gray matter and extend into the white. In the attempt of the tissues to remove the morbid material produced by traumatism, the connective tissue becomes increased in quantity and the consequence is a local sclerosis extending for some distance from the seat of injury. Walter B. Cannon, of Harvard, M. S., also lays much stress on the swelling of the injured tissues as a source of immediate rise of intra-cranial pressure.

We often find an entire change of disposition after a so-called recovery from injury in case there is not a marked mental change or insanity. When insanity develops, each case seems to present some different symptoms which prove to be only su-

perfacial resemblances to the non-traumatic disorders. General paralysis is sometimes spoken of as having developed from traumatism. This, of course, depends upon the point of view. It has been shown, however, that traumatism alone will not produce the brain changes characteristic of general paralysis, but that trauma will precipitate the cerebral reaction in a syphilitic person. Alcoholism, according to Meyer, seems to effect in traumatic epilepsy mental states that are seen, though not frequently in non-traumatic epilepsy, and Wagner found the psychic equivalents three times as frequent in traumatic epilepsy as in non-traumatic cases in the German army. We cannot use the terms "Mania," "Melancholia," and others to diagnose these cases, because, although there are many types of traumatic insanity, there are characteristic traits, and in diagnosing as above these traits, the really characteristic ones would be obscured in the characteristic traits of melancholia, mania, etc. Many paranoic cases show traits such as difficulty in calculation, memory defect, feeling of dizziness, etc. We do find, however, that all cases of trauma show partial disorientation, variations between clearness and haziness of sensorium, a certain tendency toward fabrications of dream-like situations, memory defect and poor calculation. We often find so many traits of one and another kind of insanity that it is an easy matter, with a family history showing insanity, to believe it is such a form and to diagnose it as such, treating the traumatism as an incident or as an exciting factor, which it is very likely to be.

With a correct history of either recent or remote trauma of a serious nature, it is natural to believe or at least hope that the case may yield to treatment, though in many cases of remote traumatism the injury has become permanent. When an operation seems imminent, and on the whole a chance should always be taken when there is no doubt as to a place of trephining, not only should depression of the skull be looked for but also clots, even where no injury to the cranium is noticeable. In case of fracture, the removal of pressure, in case of clot or clots, the removal of same will usually result in improvement. While a relapse or entirely different symptoms may follow, in which case a second operation may be advisable. Should there be no indications for operation, alcohol and other irritating factors should be avoided. According to Tuke, the prognosis is unfavorable in organic cases, but a number of functional

cases recover. Severe mental symptoms immediately following may clear up well while those beginning and slowly progressive, convulsions tending to become habitual and those of paranoic type, have an unfavorable forecast. On the whole there seems to be a greater chance of ultimate recovery when there is a fracture of skull rather than when clots form with no apparent injury to cranium.

From 1,925 cases in the Gowanda State Homœopathic Hospital there have been 35 cases in which trauma has been an etiological factor, 17 of which were discharged improved or recovered, giving a rate of 26.6 per cent recovered.

In the *American Journal of Insanity* of July, 1888, Talcott presented the case of a male, aged 18, who fell from the top of a ladder, 26 feet to the ground, striking on the back of his head. Motor aphasia developed. He had pain at the base of the skull and along the spine, his pupils were equal and reacted normally, and he would communicate to those about him by writing. At the end of six weeks he became homicidal and was committed to Middletown. Two days after admission it was noticed that he held his head in his hands and his pupils dilated. He suddenly looked out of the window and asked, "Where in the devil am I?" As Dr. Talcott said, "his mind went back into a normal position with a snap," so to speak, just as a dislocated bone returns to its socket when it is set by a surgeon. Three months later the patient was sent home completely recovered.

In the same journal (January, 1904,) Meyer reports the case of a young man who was struck by a car and taken to the hospital bleeding from nose and ears. He remained unconscious one week, and the bleeding from the ear stopped on the fifth day. On the eleventh day slight left facial paralysis developed. He became confused, irritable, complained of roaring in his ears, objects appeared multiplied before him, pain in left parietal region. Examination showed no hemianopsia; probable diplopia on extreme fixation toward the left or right; slight impairment of hearing on left; impairment of smell; reflexes equal and brisk; slight tremor of tongue; very slight inco-ordination in the foot and hand movements. The patient improved rapidly; the attacks of roaring and irritability decreased; self-confidence returned and he was discharged recovered.

Meyer reports another case in which there was traumatism

without marked primary results except hematoma of the scalp; change of character; sulkiness, irritability; intolerance to alcohol; attacks of headache with violent outbursts, with only summary remembrance. Removal of old subdural clot over right frontal lobe. Disappearance of headaches and outbreaks of violence; but residual susceptibility to alcoholic excitement.

The last case I shall present is that of a workman at the Gowanda State Homœopathic Hospital age 27; single; painter.

Family history and previous personal history unimportant. Habits: Moderate user of beer, no whiskey.

Accident: Occurred at Gowanda State Hospital. He fell 18 feet on June 20, 1906; struck on head and was rendered unconscious and in a few hours was delirious. This continued for eight or nine days with high temperature and a little paralysis of right arm and leg. He was admitted to Buffalo General Hospital, where an operation was performed July 3d, and several ounces of blood clot were removed beneath dura on left side. Condition about the same after operation. On admission to the Buffalo State Hospital (eleven days after operation) he could not give rational answers, was restless, noisy, incoherent; wet the bed. Sometimes drowsy, mumbling thickly a few words and dropping off to sleep, again twisting about, moaning and shouting. Fragmentary, incoherent remarks like "Pete, you will take a gun, won't you?" "I was on the roof this morning and saw all nine innings." "Well, the girls, I suppose we have got to entertain them," etc. Sometimes able to give name, age and residence, and again cannot do so. Knows he is in a hospital but knows nothing of transfer. Physical Examination: Partly healed trephine wound, with small stitch-hole abscess. Temp. 101.2; pulse 100. Flushed face, injected conjunctivae, dry mouth, sordes on teeth. Pupils dilated, equal, good reaction. Reflexes normal; tremor of tongue and hands; slurring speech.

His condition did not change materially for two weeks, during which there was always a slight elevation of temperature; then he showed rapid improvement and in another fortnight was quite clear and had good insight but was without recollection of what he had been through. It was noted that while he apparently reacted to hallucinations during the attack, no definite statement concerning these could be obtained from him. He was discharged recovered September 8, 1906.

FLORIDA AS A HEALTH RESORT.

BY

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(Read Before the Homœopathic Medical Society of the County of Philadelphia.)

It has been but a few years ago that this most delightful climate was looked upon as a boon to the consumptive, a sedative to the neurasthenic, a stimulant to the anæmic, but of late years it has been little used by the consumptive and indeed it has been developed into a winter resort for those of the North who wish to escape the severities of the Northern winters, and is therefore used but three months of the year, the remainder of the time being given up to the residential portion of the inhabitants for the pursuit of their individual tastes.

There are portions of this peninsula which offer ideal homes for the consumptive and these should not be overlooked and why should it not be, for with a comparatively dry climate and free from winds and every inducement for outdoor life, there is an abundance of fresh food and food products and a lessened stimulus for over-exertion.

Special importance must be given to the climate of the winter months. Here the climate is ideal with its balmy atmosphere and low humidity. True it is that there are some parts of Florida which offer no advantages to the sick and where, owing to the low land they would be subject to climatic conditions not quite agreeable if not harmful and in the northern section of the peninsula subject to rapid thermic changes.

The consumptive has been advised of late to avoid Florida, and one rarely meets that class of suffering, but this has been brought about by several factors, chief among which is a lack of knowledge of the true nature of the climate.

One attempts to explain this in the following paragraph: "Why is this?" he asks. "In a word, it is because we have a truer conception of the limitations of climate in its application to pulmonary tuberculosis. The hygienic dietetic treatment is authoritative. The one established on the firm foundation of experience and in the execution of this treatment, climate is a factor, and perhaps not the most essential one. Formerly climate was supposed to be the great determining element in the treatment and all else was an accessory, and further, a warm climate."

While there is no doubt that these remarks are true to a large extent, the hygienic treatment of these cases calls for an outdoor life and better conditions for that cannot be found than in some sections. Another peculiar feature and one which no doubt has had its influence is the fact that all the leading hotels have advertised the fact that "The patronage of consumptives is not solicited," and matters went so far that if a patient applied at the desk for accommodations, these were denied if they found him to be suffering from a cough on the suspicion that he might be subject to tuberculosis.

A brief review of the geography of the country will give a better and clearer idea of its usefulness to the sick.

Florida is the most southern of all the States and is in the shape of a peninsula, having the Gulf of Mexico on one side and the Atlantic Ocean on the other. The entire peninsula is of alluvial origin, the soil being mostly shell and sand with many fertile spots located thereon. The eastern shores are washed with that most delightful of all ocean currents of the Western world, viz., the Gulf Stream. This has also helped separate the mainland by a row of islands known as the Florida Keys.

At a point of twenty-eight (28) degrees latitude, Florida is divided into two geographical divisions. The surface lying north of that line is somewhat rocky and hilly while that which lies below is flat and low. The central portion is high, and there is a gradual sloping towards the Gulf of Mexico and Atlantic Ocean. These slopes are usually flat and sandy. The whole country is full of rivers and lakes, some of fresh water, but many are brackish, owing to the inwash of the ocean. Along the shores of these lakes living is most delightful and the pleasures of inland waters are to be enjoyed to the fullest extent.

The soil in the fertile districts is rich and offers fresh food and as good food products as any State. Many of the best lands are not available because of the lack of drainage. The country is not rich in minerals, but the most common found are phosphate salts.

It must also be remembered that the climate is very different in these two divisions, both in winter and in summer. North of this line the summers are exceedingly hot with heavy rain-falls so that the possibility of an outdoor life is very much diminished. This section is peculiar in that it is subject to appre-

cial changes in temperature due to the cold north winds, or better known as the "Northers." These changes consist in rapid falls of temperature within a short space of time as, in one instance, the thermometer fell from 85 degrees to 35 degrees in a period of time not exceeding four hours. These northers usually last two or three days and are quite uncomfortable even to those who are robust and in the best of health.

Moisture is not quite so abundant in the raining season here as in the south, but the dews in the dry season are very objectionable. Below the 28 line the climate is more uniform, dry and pleasant and offers ideal conditions for one who wishes to enjoy outdoor life. This condition of weather is usual except for the rainy season which is perhaps a trifle longer and during which more rain falls than in the north. The sea breezes moderate the heat in the summer and the cold in the winter. Most of the resorts are shut off from the northers by reason of the chain of hills that is to be found in the center. The warm and beneficent effects of the Gulf Stream are to be had in the lower resorts. The evenings and nights are usually cool but dry. The unusual dryness of the soil impresses one especially since it lies so near the two great bodies of water.

Many more interesting features are gained from the following tables of the United States Weather Bureau. In looking over this chart, one will notice that the winters are usually mild and the summers are not excessively hot.

Average Temperature.

	Dec.	Jan.	Feb.	March	July	Yrs.
Jacksonville	55.8	55.8	58.1	62.7	82.5	69.2
Jupiter	67.2	63.4	66.7	68.8	80.5	73.4
Tampa	62.2	58.6	63.1	66.4	81.5	71.6
Punta Rassa	64.5	64.7	66.2	68.6	81.3	73.4
Key West	70.1	70.3	71.8	73.6	84.0	77.5

Average Daily Range.

	Dec.	Jan.	Feb.	March	July	Yrs.
Jacksonville	17.0	16.7	16.4	17.4	16.1	
Jupiter	12.2	15.0	13.4	14.0	12.2	12.6
Tampa	18.0	19.8	17.1	18.9	16.1	17.7
Punta Rassa	13.5	12.7	12.9	13.4	13.0	
Key West	8.1	8.9	8.9	9.4	12.5	

Mean of Warmest Temperature.

	Dec.	Jan.	Feb.	March	July	Yrs.
Jacksonville	66.4	64.9	68.5	73.6	91.6	
Jupiter	73.3	70.9	73.4	75.9	86.6	7.97
Tampa	71.2	67.8	71.7	75.8	89.6	80.5
Punta Rassa	71.9	71.3	73.2	76.1	88.9	
Key West	75.3	75.4	77.1	78.9	91.3	

Mean of Coldest Temperature.

	Dec.	Jan.	Feb.	March	July	Yrs.
Jacksonville	49.5	48.2	52.1	56.2	75.5	
Jupiter	61.1	55.9	60.0	61.9	74.4	67.1
Tampa	53.2	48.0	54.6	56.9	73.5	62.8
Punta Rassa	58.4	58.6	60.3	62.7	75.9	
Key West	67.2	66.5	68.2	69.5	78.8	

Highest or Maximum Temperature.

	Dec.	Jan.	Feb.	March	July	Yrs.
Jacksonville	81.0	80.0	83.0	88.0	104.0	
Jupiter	82.0	80.0	84.7	85.5	91.0	93.0
Tampa	81.3	78.1	80.5	84.2	93.2	94.4
Punta Rassa	82.5	81.5	84.0	85.0	93.0	
Key West	88.0	90.0	87.0	89.0	97.0	

Lowest or Minimum Temperature.

	Dec.	Jan.	Feb.	March	July	Yrs.
Jacksonville	19.0	24.0	32.0	31.0	68.0	
Jupiter	41.0	38.5	39.8	44.8	69.1	32.7
Tampa	34.7	32.7	35.7	39.7	70.0	28.1
Punta Rassa	34.0	33.0	43.0	38.0	67.5	
Key West	44.0	48.0	55.0	53.0	72.7	

Average Relative Humidity.

	Dec.	Jan.	Feb.	March	July	Yrs.
Jacksonville	73.7	74.6	70.6	65.4	71.8	72.0
Jupiter	83.7	84.7	84.0	80.0	81.5	82.0
Tampa	83.4	81.6	83.8	80.0	82.4	81.2
Punta Rassa	75.3	77.6	75.3	72.1	75.7	74.9
Key West	78.7	79.7	76.6	70.5	70.3	73.9

Average Precipitation in Inches.

	Dec.	Jan.	Feb.	March	July	Yrs.
Jacksonville	2.89	3.28	3.45	3.13	4.18	54.68
Jupiter	2.88	3.43	2.72	2.59	5.35	62.14
Tampa	1.57	2.45	2.81	2.68	7.99	53.09
Punta Rassa	1.28	2.36	1.72	1.20	7.22	43.54
Key West	1.84	2.32	1.84	0.66	4.27	40.88

Prevailing Direction of Wind—From—

	Dec.	Jan.	Feb.	March	July	Yrs.
Jacksonville	N. E.	N. E.	N. E.	N. W.	S. W.	N. E.
Jupiter	N. W.	N. W.	S.	S.	S. E.	S. E.
Tampa	N.	N.	N. E.	S. E.	E.	N. E.
Punta Rassa	N. E.	N. E.	N. E.	N. E.	E.	N. E.
Key West	N. E.	N. E.	E.	E.	E.	E.

Average Hourly Velocity of Wind, in Miles.

	Dec.	Jan.	Feb.	March	July	Yrs.
Jacksonville	6.0	5.8	6.9	7.9	6.3	6.7
Jupiter	10.2	9.9	10.7	10.6	7.6	9.7
Tampa	6.0	6.0	6.9	6.7	5.2	6.1
Punta Rassa	10.3	10.2	10.7	12.0	8.2	10.1
Key West	11.2	10.8	10.4	11.2	7.5	9.7

Average Number of Clear Days.

	Dec.	Jan.	Feb.	March	July	Yrs.
Jacksonville	10.2	9.0	9.7	12.7	10.2	123.2
Jupiter	9.8	13.0	11.0	17.4	12.5	131.4
Tampa	12.1	9.5	8.4	11.7	7.0	115.0
Punta Rassa	12.1	9.8	11.5	14.7	3.4	102.9
Key West	11.0	11.3	11.7	15.8	5.7	113.4

Average Number of Fair Days.

	Dec.	Jan.	Feb.	March	July	Yrs.
Jacksonville	12.0	12.8	10.4	13.0	16.0	156.7
Jupiter	14.1	11.0	11.1	9.7	13.4	153.8
Tampa	12.3	16.4	14.3	14.4	20.0	188.2
Punta Rassa	12.8	15.0	11.4	11.8	10.4	186.1
Key West	15.5	14.7	12.6	12.5	19.8	192.5

Average Number Fair and Clear Days.

	Dec.	Jan.	Feb.	March	July	Yrs.
Jacksonville	22.2	21.8	20.1	15.7	26.2	279.9
Jupiter	23.9	24.0	22.1	27.1	25.9	285.2
Tampa	24.4	25.9	22.7	26.1	27.0	303.2
Punta Rassa	24.9	24.8	22.9	26.5	23.8	289.0
Key West	26.5	26.0	24.3	28.3	25.5	305.9

POTATOES FOR THE DIABETIC.—Labbe (*Le Presse Medic.*, October 12, 1907) has found the starch of potatoes to be tolerated much better by diabetics than any other form of starch, especially better than bread. An equal weight of potato starch contains between two and one-half and three times less carbohydrates than bread, and therefore it may be given when bread is prohibited. Potatoes will allow the ingestion of large amounts of fat and can be cooked in a variety of palatable ways.

EDITORIAL

A PLEA FOR A NEGLECTED REMEDY.

THE clinician who popularizes an old and neglected remedy deserves as much, if not more, credit than he who discovers a new one. This was our thought as we noted an article bearing the title which heads this editorial in the *British Medical Journal* for February 29, 1908. The author is one of England's celebrated physicians, Dr. Eustace Smith. In politics, religion, medicine and finance we are passing through a pandemic of hysterical heresy. Few have been free of the disease, and the remainder of us have differed from each other only in the intensity of the infection. Dr. Smith's article then appealed to us as especially opportune, and so we proceeded to read it in great expectation of learning much. We were not to be disappointed, for not only did the learned author make an eloquent appeal for his "favorite," but he brought out several other points which are singularly *apropos*.

The author makes a strong appeal for wine of antimony in bronchitis, a remedy which is used by old school physicians in cases in which tartar emetic is indicated. He first speaks of its use in the treatment of acute bronchitis, and quite pertinently remarks that the fact that the remedy has been greatly abused by the administration of large doses is no reason why it should not be used intelligently in small doses at frequent intervals. He refers to the empirical treatment of acute bronchitis by the younger generation of practitioners, who are accustomed to prescribing various expectorants and sedatives without respect to the symptoms of the case and the stage of the disease, and he shows that this hap-hazard prescribing is not for the welfare of the patient. As he truly remarks, "In the management of a bronchial catarrh, each class of remedies has its own time for serviceable action, and is useless if given out of its due season." . . . "To give ammonia, squill, paregoric, and other stimulating and antispasmodic drugs in the early stage of the catarrh is to make the cough harder and the chest tighter, and greatly to aggravate the discomfort of

the patient if not to produce worse ill consequences. By such means I am convinced that what would have been a mild indisposition has often been aggravated into a serious illness by driving the catarrh further and further into the minute tubes, and that in children, a moderate bronchitis has not seldom been turned into a broncho-pneumonia." . . . "Antimony is not employed with any view of depressing the patient, and therefore it is advisable to prescribe it in small doses frequently repeated rather than in large doses given at longer intervals. It not only acts more efficiently in this way, but its effect can be more easily noted and the dose repeated more or less often according as it may seem advisable. The dose advised by the author is from 2 to 15 minims (equivalent to 1-120 to gr. 1-17 of tartar emetic) according to the age of the patient, at intervals of one or two hours as long as the symptoms are acute. "Great severity is no bar to the use of the drug" and the indications are "distress is great, the breathing difficult, the cough hacking and incessant, and the pulse small and feeble." . . . "The beneficial effects of the remedy are most decided, and it will be noted that the lividity and discomfort abate, and the pulse gets fuller and stronger as the secretion from the lungs gets more and more abundant and free." . . . "In the early stages of broncho-pneumonia in children, antimony is a remedy of undoubted value. It is most useful at the period when the consolidation is still in patches, and before large areas of lung have become implicated, giving rise to definite bronchial respiration and all the signs of wide consolidation." . . . "There is another use for the antimonial salt which must not be forgotten. It is a recognized fact that *all*¹ nauseating medicines when given in minute doses lose their irritating properties and become gastric sedatives. Good examples of this *law*² are seen in the cases of ipecacuanha and zinc sulphate. Ipecacuanha wine given in doses of 1 minim in a spoonful of water is now a familiar remedy in cases of vomiting; and zinc sulphate in doses of 1-12 to 1-6

1. Italics ours.

2. The reader will please note that Dr. Smith says "this law"; he does not mention any law, but leads us to infer that drugs which act as emetics in large doses are capable of reducing gastric irritability with such regularity or certainty, that the term "law" is to his mind appropriate. The most enthusiastic homœopath would ask for no greater admission.

grain taken before food in a spoonful of some bitter infusion is one of the most trustworthy and satisfactory of stomachics.³ In the same way, antimony prescribed in doses of 1 to 2 minims of the wine is a useful addition to the prescription⁴ in cases of gastric derangement and contributes materially to its curative value." . . . "In small doses, antimony is of value also for its action in inflammatory conditions of the skin. In eczema, whether acute or chronic, the drug is one of the most satisfactory of internal remedies if continued perseveringly.⁵ I have found 5 drops of the wine taken as an adult dose in a teaspoonful of water after each meal, to produce speedy improvement in cases of long standing." Unfortunately, our author does not present his specific indications for antimony in skin diseases.

The article, taken as a whole, cannot but impress the homœopathic physician that many of us are like the "young house-physicians" whom Dr. Smith criticizes. All of us are becoming so enamored of the great discoveries in pathology and diagnosis that we are too prone to make ourselves students of disease rather than healers of the sick. It is not that we would underestimate the former, but rather that we would insist upon the prime necessity of not forgetting the duties which our patrons, the public, demand.

3. This seems to be fair homœopathy. It is true that the author recommends the admixture of a bitter infusion, but the context shows that he pins his faith on the zinc sulphate in small doses. So far as we know, few if any of the physicians of our school have made use of zinc sulphate as a stomachic. All credit should be given Dr. Smith for his therapeutic suggestion. Certainly, our physicians are becoming derelict in their application of drug action.

4. Unfortunately, the author cannot get rid of the notion that a prescription must be a mixture. Polypharmacy is always a weakness.

5. The reader will note the word "perseveringly." The practice of abandoning an indicated drug before it has had time to act is altogether too common, and is doubtless at the foundation of many therapeutic failures.

THE INTERNATIONAL CONGRESS ON TUBERCULOSIS.

THE most important medical meeting of the year, both to the profession in general and to the public, will be the International Congress on Tuberculosis to be held at Washington, D. C., September 21 to October 12. This Congress meets once every three years and has never held a session in America before. Delegates will be present from nearly all the civilized countries in the world, including Great Britain, France, Spain, Italy, Germany, Switzerland, Holland, Belgium, Denmark, Sweden, Norway, Russia, Austria, Hungary, Bulgaria, Greece, Argentine, Brazil, Uruguay, Chile, Colombia, Ecuador, Guatemala, Peru, Venezuela, Porto Rico, Cuba, Hawaii, Japan. This will give us some conception of the world-wide interest that is being taken in the crusade against this ancient and ubiquitous enemy of the human race and which, until the last three decades, has challenged all efforts at prevention or cure.

The Federal Government is taking an active part in the Congress and seven of the nine governmental departments will participate. In thirty-seven States there are committees at active work and many State and municipal governments will officially lend their co-operation and support.

The Congress will be divided into seven sections and ample provision is made under these for discussions, lectures and demonstrations both to the profession and to the public. In connection with the meetings there will be held a great Tuberculosis Exposition in which will be exhibited the various methods and appliances for the cure and prevention of tuberculosis from all over the world.

What is the meaning of this great movement? It means that the medical profession is fast forging to the front as one of the most useful and powerful agencies in our modern civilization. It means that the nations of the world are beginning to recognize that if an efficient army and navy are necessary to protect them against war, an active and scientific body of medical men are necessary to protect them against a more subtle and destructive enemy—disease. It means also that the profession itself is beginning to take a broader view of its field of usefulness. We are beginning to awake to the fact that the time has come for us to come out of the laboratory and enter the very thick of the battle which man is waging for the progress

of civilization and the betterment of his race. We are at last aware that the work of the physician has an important relation to the body politic and that his work in behalf of the community is quite as important as his efforts in behalf of his individual patients.

When considering the honor such a gathering must reflect upon that great profession whose members by their arduous labors and innumerable sacrifices have made this Congress, so important to the welfare of our Nation and to the entire civilized world, possible, we who are members of the homœopathic school cannot but be humiliated when we realize how little we have contributed to bring about this important event. No matter how active an isolated member of our school here and there may have been in his efforts to stamp out the disease or how successfully he may have applied the homœopathic method in the treatment of the cases of tuberculosis that have come under his care, the fact remains that as an organized body of homœopathic physicians our contributions to the pathology, diagnosis or prevention of tuberculosis in general or to the success of this Congress in particular have been practically negligible. Should the homœopathic school refuse to have anything to do with the Congress whatever it would detract but little either from the value or the success of the gathering. Should the members of the old school medical societies, however, withdraw in a body from the work of the Congress there is every reason to believe that the whole thing would be an utter failure.

We cannot but feel that there is a lesson in these facts that the members of the homœopathic school would do well to take to heart—namely, that schools of medicine, as well as individual men, are known by their fruits, and that the public demand of us, not more materia medica, not philosophical and verbose essays on the “law of similars” or “the power of the infinitesimal dose,” but, practical demonstrations of our ability and willingness as an organized body of physicians to measure up to the needs of the day and generation in which we live.

The Homœopathic Medical Society of the State of New Jersey will hold its annual meeting at the Princeton Inn, Princeton, N. J., on Thursday, May 7th. The meeting promises to be one of the largest ever held. President Wilson, of Princeton University, will address the Society. Every member is urged to be present and members of other societies are cordially invited.

C. W. PERKINS, M. D.

GLEANINGS

TREATMENT OF AORTIC INCOMPETENCE.—Sir J. H. F. Broadbent, in an article on the aortic incompetence of later life, makes the following remarks concerning the treatment of this lesion: The treatment will vary according to the predominant symptoms. If uraemic symptoms predominate, such as dyspnoea, delirium, and restlessness, the administration of mercurial purgatives, mild diuretics, and iodides will be beneficial. Most important, however, is a purin-free diet, and an absolute milk diet as advocated by Huchard, may be advisable in some cases. If anginoid symptoms are present, the administration of glonoin, amyl nitrite, sodium nitrate, or other vaso-dilator, will be called for. Morphia given hypodermically, will often afford great relief, both in these cases and in the group mentioned above.

The question as to the use of digitalis in aortic incompetence has been much debated. In cases due to degenerative change, it is seldom called for, as the blood pressure is usually high; and the regurgitation considerable. Even when the incompetence appears to be giving rise to cardiac embarrassment, the object of treatment will be rather to relieve the left ventricle by lowering blood pressure than to attempt to stimulate it.

If, however, compensation has completely broken down, and mitral incompetence is present, with engorgement of the lungs and back working, so that the work of compensation falls on the right ventricle, digitalis may sometimes prove of service in stimulating and reinforcing the embarrassed right ventricle. It is, however, not always beneficial even in these cases, as the right ventricle may be the seat of fibroid change, or be incapable of responding efficiently.

In similar conditions in young subjects, in which the incompetence is the result of acute endocarditis, and secondary mitral symptoms are present, the benefit from digitalis to the right ventricle may be very marked, and efficient compensation be restored for a time, as the heart muscle is usually healthy, and responds more rapidly to stimulation.

The effect of the digitalis will, of course, not be confined to the right ventricle, and its action on the left ventricle may, up to a certain extent, be beneficial in helping to restore it to its previous state of efficiency.

Digitalis should, however, not be employed even in young adults, still less in later life, in aortic incompetency, unless there are mitral symptoms in addition, as unnecessary stimulation of the left ventricle will only cause a more violent and forcible contraction, which will project the blood into the aorta with greater force and throw more strain on the vascular system, but will in nowise diminish the amount of regurgitation.—*The Practitioner*, March 1908.

THE TREATMENT OF ANGINA PECTORIS.—In the first stage of the disease, the symptoms concern chiefly disturbances on the part of the nervous system. The patient complains of pain at the middle or upper part of the sternum only during exercise in the open air, sometimes only with rapid walking, and especially up-hill. Then he is compelled to stand still for a moment, in order to be able to continue without pain for some distance without resting. If the case is uncomplicated, the area of the heart's dullness, and also its sounds, may remain entirely normal. In similar cases the angina is regarded as a cardiac neurosis. But frequently there occurs now or a little later symptoms of digestive disturbance, which convince the patient that his disease is essentially a gastric disorder. What advice is here to be given? The first point is of psychical influence. The patient, anxious about his condition, must be reassured and nothing said, as so often occurs, about "hardening of the arteries of the heart." Such inconsiderate speech oftentimes disturbs a patient for his lifetime, depresses him and robs him of all hope of recovery. He should be directed as to dietetic and hygienic rules, the use of tobacco and spirits forbidden, and bromides ordered if needed. If increased arterial tension is present, then, aside from a diet having a prevalence of milk and vegetables, iodine preparations are indicated: but they should be begun with small doses and always with regard to individual susceptibility. The intolerance to iodine in these cases is often very great, just the opposite of the marked tolerance seen in syphilitics.

If the angina pectoris begins suddenly, the patient after use of bromides, morphine or other anodyne, is to rest for a few days, preferably in bed. Such a rest will sometimes guard the patient against recurrence for months or even years. Should there be excessive irritability of the nervous system, light hydiatic measures are useful. For the same object, as well as for tonic effect upon the vascular system, carbonic acid baths may be used, beginning with the weaker baths and having careful regard for the vascular tension. With considerable hypertension, the author holds these baths to be contraindicated.

When the digestive tract and liver are disturbed, mineral waters are useful, their eliminative action lessening the attacks and influencing favorably the nutrition of heart muscle and the activity of kidneys.

The duration of the first stage varies. It may be short, ending in sudden death, or by more frequent attacks passing into the second stage; for the most part, however, especially by ordering the mode of life so as to avoid emotions and daily cares, the first stage may continue for months or even years. Recovery may also occur as a result of cicatrization at the point where the narrowed coronary had supplied blood scantily. Improvement or recovery may also occur through establishment of collateral circulation.

The second stage is marked by the occurrence of pain, not only with rapid walking, but also with slow exercise, sometimes at home during complete rest, sometimes even in bed by change of position. Presumptively, the sclerotic coronary changes increase, and in the heart muscle many centers of degeneration occur, whether fatty, anemic or fibrous. In this stage, whatever increases the resistance in the peripheral circulation, or increases the work of the heart in any way, may cause pain more or less

severe, or induce a stenocardic attack. Also the deleterious influence of nervous excitement, emotions, and digestive disturbance becomes very evident. It must be noted that many cases now begin to show dyspnea. In many cases after the attack, especially when severe, increase of the heart's dulness in transverse diameter is noted, which may continue for days. Evidences of beginning heart weakness may be seen, as moist rales in bases of lungs, enlargement of liver, slight albuminuria, and systolic murmur at the apex. The arterial tension may now be normal or diminished (hypotension). Under such conditions prolonged rest in bed, with digitalis, serves to improve the circulation and lessen the attacks of stenocardia. As regards iodides, they must be used cautiously with lessened heart activity and reduced vascular tension, especially when general nutrition also begins to suffer.

In the third stage, angina pectoris is more a disease of the heart muscle than of the blood vessels. Of first importance is the dyspnea, the pain now assuming an inferior role. The attacks usually begin with short, mild pain, followed by dyspnea. The circulation shows marked signs of failure of cardiac energy; lower pulse tension, dilation of the heart, marked enlargement of liver, moist rales in the lungs, albumin and casts in urine, transudation into pleuræ and peritoneal cavity, etc. The attacks now occur without evident cause, and are very frequent at night, accompanied by dry rales like those of asthma. In some cases the attack lasts only a very short time, and ends in pulmonary edema, frequently threatening life. In this stage are indicated digitalis, strophanthus, and theobromine, combined with general stimulants, as caffeine and camphor. It must be said that cases having had angina pectoris previous to the occurrence of symptoms of degeneration of the heart muscle, present an unfavorable prognosis.

In treatment during the attack, first of all the patient must be allowed to assume the posture that he instinctively selects. In extremely severe cases the lying position, standing upright with leaning against some object will be selected. Many patients prevent the attacks, or lessen their intensity, by warming the bedroom or bedclothing. To the most useful remedies, especially in cases with increased vascular tension, belong the nitrites, whose value depends upon their vasodilator property. Nitroglycerine holds first place among them, though some patients are better served by inhalation of amyl nitrite, or by sodium nitrite. These are to be used in moderate doses. Sometimes quinine, 0.30 gm. (5 grains), will shorten an attack. Some recommend antipyrin, phenacetin and similar drugs, but these must be used with caution, especially in cases with heart weakness, for fear of collapse.

If the remedies named do not alleviate the pain, morphine is to be employed, 0.01-0.015 gm. (gr. 1-6 to 1-4). This drug need not be avoided when the pulse is good and rhythmic, but when the working capacity of the heart is doubtful, it is well to precede its use by caffeine or camphor. Should the stenocardic attack be caused by digestive disturbance, with flatulence, regular evacuations must first of all be secured, preferably by irrigation when prompt result is needed. Drastics must be avoided, as frequent evacuations with straining may not only increase the attacks, but also cause heart exhaustion.—J. Pawinski, *Wiener Klinische Wochenschrift*.

EPILEPSY IN CHILDHOOD.—Keeling (*Brit. Jour. Child. Dis.*) says that the pathology of epilepsy appears to resemble in some respects that of cerebral diplegia, chorea, paralysis agitans, neurasthenia, myoclonus and migraine.

Etiologically, rickets is an important factor in the causation of epilepsy.

A variety of epilepsy, which may be termed toxic epilepsy, is chiefly gastro-intestinal in origin.

Reflex epilepsy is apparently rare; peripheral irritation probably plays a very small part in the production of the fits.

The effect of measles on epilepsy is uncertain.

Chorea is very rarely found associated with epilepsy.

Infantile paralyses, especially the congenital forms, are closely related to epilepsy.

An injury or a fright is frequently the exciting cause of a fit. Instrumental delivery may be followed by paresis with subsequent epilepsy.

Enuresis is an occasional sequela of epilepsy.

The three affections most frequently found in the family history of epileptics are epilepsy, migraine and alcoholism.

Migraine appears to be very closely allied to epilepsy, both in the family history and symptomatically.

The differential diagnosis between Meniere's disease and epilepsy is occasionally difficult.—*Charlotte Med. Journal.*

PRIMARY HEMANGIOMA OF MUSCLE.—John Staige Davis presents an extensive review of this subject based upon a case treated by himself, and a review of the literature bearing on this variety of benign tumor. As is usually the case with such investigations, the entire paper should be read to appreciate its value. Practitioners are interested mainly in the conclusions framed by the author as to diagnosis and treatment. Primary angioma of muscle cannot be considered a very rare condition, as the 153 cases reviewed in the paper indicate. It is a slowly-growing tumor, usually congenital in origin, but without doubt follows trauma in some instances. It may occur in any striated muscle, and the muscle in which it forms plays a perfectly passive role. Compressibility, change in form on raising or lowering the limb, and pain are the three typical symptoms, although any one or all of them may be lacking. The clinical diagnosis is very difficult when the typical symptoms are indefinite and many cases are not diagnosed until operated upon. The skin is usually normal; the tumor as a rule is soft, but may be hard, smooth or lobulated, movable or fixed, circumscribed or diffuse. It varies in size from a small nut to a child's head. The X-ray may give some assistance in diagnosis when bony formation is present. There are two principal varieties—the simple, which is comparatively rare, and the cavernous, the latter being the most common; however both varieties may be present in the same tumor. On section, the characteristic appearance of a blood-filled sponge, brownish-red in color is seen. There is no particular afferent or efferent vessel. Microscopically, the typical picture is that of blood spaces lined with epithelium, containing normal blood, and surrounded by walls of smooth muscle and connective tissue.

Phleboliths are often present in the blood spaces as well as in the dilated veins and are thrombotic in origin. The only treatment of par-

ticular value is excision, and if complete, it is practically sure to cure the condition. However, partial excision has in a number of cases proved equally efficient, although 3 recurrences are on record following partial excision. The prognosis is excellent.—*Bulletin of the Johns Hopkins Hospital*, March, 1908.

KOCH'S OLD TUBERCULIN IN GYNECOLOGICAL DIAGNOSIS.—Pankow (*Zent. f. Gyn.*) sums up a series of thirty-two cases of tuberculosis of the abdominal organs in which the diagnosis was assisted by the injection of the old form of tuberculin made by Koch. In all these cases the operation acted as control on the diagnosis. When there was a local reaction from the injection it was shown by pain in the abdomen and profuse diarrhea. A general reaction was shown by fever, chills, nausea, vomiting, etc. Only patients having no fever were injected. The thirty-two patients may be divided into four classes: 1. Those in which neither reaction nor histological diagnosis showed tuberculosis. 2. Those in which the diagnosis was not established by the injection. 3. Those in which reaction and histological diagnosis agreed. 4. Those in which with a negative reaction diagnosis, histological examination showed tuberculosis to be present. The histories of all these cases are given. Of thirty-two cases in which tuberculosis was established by examination the result of the tuberculin injection was positive in twenty-four, that is 75 per cent. It was negative in nine, 25 per cent. The local action was absent in twenty of the cases that showed general reaction. The author states that according to his observations if both local and general reaction are absent in all probability tuberculosis is absent from genitals and kidneys. Local reaction seems to be of little value in the diagnosis of abdominal tuberculosis.—*Charlotte Med. Jour.*, March, 1908.

THE APPLICATION OF PURE ICHTHYOL IN GONORRHEAL EPIDIDYMITIS.—By Dr. C. Philip (*Muench. Med. Woch.*, Oct. 7, 1907, No. 41, p. 2034.) For the last two years the author has had good results with the following method in treating gonorrhœic epididymitis:

During the acute stage the patient is kept in bed, the scrotum is raised, and cold applications are applied. In very mild cases where the patient cannot stop working, a Langlebert suspensory with Preissnitz application are ordered from the very outset.

After four to seven days the acute symptoms, fever, swelling and tenderness, abate. The gonorrhœic inflammation rarely has a tendency to suppuration, but soon passes to the subacute and chronic stage. The chronic inflammation is characterized by the presence of much connective tissue. Clinically, there are frequent recurrences and often neuralgic pains. At rest, there may be no pain, but if the patient is up and about for a protracted period there may be another acute attack after weeks or months, so that the patient may be unable to work for a long time. The infiltration is often not completely absorbed, so that a circumscribed, dense nodule will remain in the epididymis.

Since this process closely resembles other chronic inflammations, particularly synovitis crepitans, pure ichthyol (Cordes, Hermann & Co.) was tried in a large number of cases. The method of application was as fol-

lows: The diseased half of the scrotum, including the skin over the cord up to and beyond the inguinal ring, are painted liberally with pure ichthyol and then covered with a moderately thick, folded piece of cotton. The usual snugly fitting suspensory is then applied. Since the skin over the cord and that of the scrotum form a firm sheath, a dragging of the testicle with the diseased epididymis is impossible. It is sufficient to cut short the hairs over the scrotum; shaving is not necessary.

After four to five days the bandage is dissolved off with warm water and a new one applied.—*The Post-Graduate*, Feb. 19, 1908.

THE TREATMENT OF INVETERATE PUERPERAL INVERSION OF THE UTERUS.—*Zentralbl f. Gyn*, 1907. 1439. Gross (Prague) advises in such cases: 1. Careful attempts at bloodless reposition; these will probably fail if the inversion be complete. 2. The best operative treatment is to open the peritoneal cavity through the vagina, and then according to the severity of the case, to try bimanual reposition; or to try the same after splitting the uterine wall, and finally elongating the incision down to the vaginal insertion. 3. If adhesions exist which cannot be separated through the vagina, it may be necessary to do celiotomy; after loosening the adhesions simple taxis may succeed, or else combined with partial or complete splitting of one uterine wall. 4. Mutilating operations are only indicated in uncontrollable hemorrhage attending the above named operations, septic infection, or perforation of the uterus.

THEODORE J. GRAMM, M. D.

EARLY GETTING UP AFTER ABDOMINAL OPERATIONS.—*Zentralbl f. Gyn*. 1907, 1610. Hartog (Charlottenburg) says until lately it was generally customary to keep such operated cases in bed for about two weeks, but a few years ago some American surgeons (Reis, Chicago; Boldt, New York) began to permit these patients to leave the bed in a few days after operation. The consideration giving some concern was that this practice might favor the occurrence of thrombosis. Observations of several larger series of cases of American operators have, however, shown that thrombosis is not favored by early getting up, but such likelihood is rather diminished. In regard to the tendency for the development of hernia, the writer says he could not observe any instance ascribable to early getting up.

One of the advantages of early getting up is the marked effect upon the psychic condition of the patients; for they do not dwell upon or magnify the impression that they have undergone a major operation. Impairment of the power of locomotion and the tendency to fainting is also prevented by early getting up. Patients, however, do complain of tension in the abdominal wound. Other advantages also are: improved appetite, more regular bowel function, less frequency for catheterization, breathing is freer, and there is less tendency to hypostatic pneumonia, especially in older patients.

The author has tested this newer practice in about 150 cases of abdominal operations. The following principles guided him in the selection of the cases. 1. Primary union of the abdominal wound. 2. The certainty of an aseptic condition of the post-operative condition; so he waits one or

two days until the pulse and temperature and the passage of flatus point to an accomplished convalescence. 3. The subjective condition is decisive. If the patient desires to get up on the second day, she is permitted to do so. Exception is made in patients who have undergone plastic operations or were operated for hernia. Diabetics are permitted to get up early, also those operated for myoma.

In reading such reports anyone conversant with abdominal surgery will doubtless have suggested the thought that errors in judgment in this matter may be attended by unpleasant results, as is indicated by the report of cases where abdominal incisions have reopened after apparent aseptic union.

THEODORE J. GRAMM, M. D.

IODINE CATGUT IN ABDOMINAL SURGERY.—Bovee (Washington) writes about the use of a successfully prepared iodine catgut. The preparation now employed at the Columbia Hospital consists in cutting the catgut into desired lengths and wrapping into figure of eight or on glass spools, and placing, without preliminary preparation, into a solution composed of tincture of iodine 1%; potassium iodide 1½%; and absolute alcohol 97½%. In this solution the catgut remains for fourteen days, when it is ready for use. Catgut thus prepared has been tested in the laboratory and by practical use for the last three years, and the author says he is confident (1) that the catgut prepared by this iodine method is less apt to be contaminated than when otherwise prepared; (2) that it is sterile; (3) that while in the tissues it exerts a germicidal action against micro-organisms; (4) that it has increased tensile strength and better resists absorption, a fault of catgut prepared by other methods; (5) that it is economical, as the waste is infinitesimal; and (6) that the preparation is much simpler and easier than by any other method.—*Amer. Jr. Obs.*, 56, 366.

THEODORE J. GRAMM, M. D.

BLOOD TRANSFUSION IN PUERPERAL SEPTICAEMIA.—McKay (New South Wales) reports a case where the result of this procedure was to abolish the rigors. The case reported is not at all conclusive, because of several disturbing factors, and in fact terminated fatally. The writer is, however, able to report the cessation of the rigors. The pulse and temperature also improved, and the patient progressed so rapidly that she was allowed to sit up. While in this posture she fainted and suddenly died on the twelfth day. A more extended trial of blood transfusion is suggested in these cases.—*Amer. Jr. Obs.* Vol. 56, 448.

THEODORE J. GRAMM, M. D.

TUBERCULOSIS OF THE KIDNEY.—Hall (Cincinnati) says: Until recent years tuberculosis of the kidney was regarded as a constitutional rather than a local disease, more of a medical than a surgical condition. Tubercle bacilli may reach the kidney through the circulation; or it may be conveyed by the lymph channels; or the disease may extend along the walls of the ureter by continuity from the bladder; or more rarely infection may be directly communicated to the ureter through some tuberculous focus situated outside of the genitourinary tract. When the disease reaches the kidney from some of the lower parts of the genitourinary tract by way of the ureter,

the kidney is the last portion of the urinary system to be affected. The kidney is often affected with tuberculosis without either the ureter or the bladder being involved. When the disease is of the ascending type, it is very much less promising from a surgical standpoint than it is when it is first local in the kidney. This fact should stimulate us to greater effort to **make a correct diagnosis early in the disease.** The discharge of the pus and bacilli through the ureter, not infrequently the latter, becomes temporarily obstructed, developing the hydronephritic kidney. If the disease is allowed to advance, not infrequently in the region of the opening of the ureter we will find tubercular ulcers in the bladder mucosa. The difficulties of diagnosis are considerable. The main symptoms are lumbar pain, dysuria, polyuria, frequent micturition at night as well as by day, pyuria with acid urine, hematuria with acid urine, the presence of tubercle bacilli in the urine, loss of flesh, night sweats, pallor, and slight elevation of temperature, especially in the evening. Almost all of the patients seen by the author with tubercular disease of the kidney were treated for weeks or months for other than renal affections. It would be well always to suspect tuberculosis of the kidney in patients complaining of an irritable bladder, in which some other good cause cannot be found to account for their condition.—*Amer. Jr. Obs.* Vol. 56, 577.

THEODORE J. GRAMM, M. D.

PSORIASIS, TREATMENT OF.—Dr. E. Barendt in the *Folia Therapeutics*, recommends the following treatment for psoriasis. He first insists on the thorough removal of the scales, with the use of soft soap if upon the body, and with spirits of soap if upon the scalp. This treatment is begun at night and is followed the next morning with a hot bath; sand soap and a brush being used to assist in the removal of the scales if necessary. A 4% chrysarobin ointment is then thoroughly rubbed into the now scaleless areas. Caution must be taken to protect the unaffected skin by the use of a dusting powder made up of starch, zinc oxide and talcum. If the well skin should still show signs of irritation then ammoniated mercury should be used instead of the chrysarobin. The addition of 2 to 5% of salicylic acid frequently hastens the action of the chrysarobin. 2 to 4% of betanaphthol as well does good. Engallol has according to the author given excellent results in some obstinate cases, being applied with a brush, the dusting powder as previously mentioned as well being used. Occasionally it is advisable to dilute with acetone. Free perspiration should be made possible.

RALPH BERNSTEIN,

CONSTIPATION AS A CAUSE OF GYNECOLOGICAL DISEASES.—Muller. *Zentralbl. f. Gyn.* 1907,—1321. This author calls attention to the etiological importance of constipation in diseases of women. In the bowel itself may arise polypi, ulcers, hemorrhoids, periproctitis, periproctitic exudates and abscesses; while in the genital sphere the uterus, adnexa, and pelvic peritoneum easily become affected by inflammations peculiar to them. Anomalies in form and position of the uterus are also traceable to constipation. Furthermore, nervous conditions easily arise, as also hyperemesis gravidarum. Systemic effects induced are chlorosis, rheumatism, gout, neurasthenia. The treatment should consist in the application of

heat, massage, especially vibratory massage of the abdomen, vagina and rectum; mild enemata, and antiseptics applied to the inflamed bowel.

THEODORE J. GRAMM, M. D.

THE ETIOLOGY OF HYPEREMESIS GRAVIDARUM.—Winter. *Zentralbl. f. Gyn.* 1907—1497. In this article Winter makes some interesting comments upon the current tendency to divide cases of this disease into groups. In classifying cases we must exclude such as are dependent upon other and extragenital causes. He shows that the disease is not to be regarded as a neurosis alone, for the pathological changes and occasional fatal termination prove this. He gives the pathological lesions found in a fatal case, consisting mainly in fatty and other degenerative changes in the liver and kidneys. The findings of other observers being similar to those he mentions, would seem to indicate that definite lesions attend this disease. His conception of the etiology of true hyperemesis is that it begins as a pure reflex neurosis; if this condition be not relieved, the functions of the liver and kidneys become disturbed, and a retention of the poisons induced by pregnancy follows, which may lead to fatal intoxication. If Winter's view be correct, the demand for active and efficient treatment is emphasized. Concerning treatment, nothing new is proposed, except that he believes it requisite to supply the body with fluids in place of those lost in vomiting and by hypersecretion of saliva, and this may be accomplished by the use of saline enemata.

THEODORE J. GRAMM, M. D.

A SPLINTER OF STEEL HEALED IN THE IRIS AND BORNE WITHOUT IRRITATION FOR 10 YEARS.—The case was that of an officer who complained that for a short time previously, his right eye would at intervals become inflamed. Examination showed circum corneal injection, especially in the inner quadrant. In the corresponding area of the iris was a black foreign body. Upon questioning, the patient admitted that 10 years previously, in a duel, a piece of sabre had broken off and struck his eye. After a temporary irritation, however, the eye had recovered and remained normal to the present time, without any siderosis. The portion of the iris containing the foreign body was excised, but unfortunately the body was lost in the hemorrhage into the anterior chamber, and could not be found even after this had disappeared. About five months later the patient returned and the foreign body could be seen on the lower area of the iris coloboma. This was shown to be iron by means of the electro-magnet. The second operation was successful. The foreign body weighed 0.0008 g. and consisted of two pieces of iron imbedded in tissue. The iron itself weighed only 0.0004 g. The reason that the body had never been discovered was probably that it lay in some fall of the iris, and later shifted its position. —Otto Bergmeister, Vienna, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

EMBOLUS ARTERIAL CENTRALIS RETINA TREATED BY MASSAGE.—The case, Mrs. G., complained of sudden loss of sight in the left eye. Examination showed obliteration of the retinal arteries, with narrowing of the veins,

pale disc, rigid pupil. After cocainization, the eye was thrice massaged, two minutes at a time. Next morning there was a small amount of vision present. Under massage twice daily, all except the superior nasal artery began to resume their circulation, and the portion of the retina supported by them began to functionate. One week from beginning of the condition 0.002 strychnia nitrate was injected into the temporal region every other day. The arteria nasalis superior very slowly recovered its circulation, and even one month later was smaller than normal, especially at the papilla. The corresponding scotoma had become less marked but blue, red and green could not be distinguished. Two months after the appearance of the embolism V-3-5-5, a slight general contraction of the field for white remained, which was most pronounced downward and outward.—Mulheim L. Casper, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

THE PATHOLOGIC-ANATOMIC CHANGES OF THE BLOOD VESSELS OF THE EYE IN SYPHILIS.—Michel states that pathologic-anatomic examination of the syphilitic eye is uncommon. The case reported by him consisted of a widespread syphilitic affection of the blood vessels of the eye ball, which was recognized only after microscopic examination of the enucleated eyeball. A 38-year-old man, with a normal right eye, suffered from highly increased tension of the left eye, with haze of cornea and vitreous preventing ophthalmoscopic examination. The eye was blind, and was enucleated on suspicion of intraocular tumor. The patient gave no history of syphilis, nor were any other lesions demonstrable. In the limbus of the cornea and in the sclera there was a round cell infiltration around the blood vessels which did not affect the vessel walls. At the point of junction of the conjunctiva and cornea, the epithelium was raised greatly, and loosened. The posterior wall of the cornea, especially in the region of the pectinate ligament was covered with round cells. The iris had a number of irregular distributed areas of round cells, each surrounding a blood vessel. The rest of the media were clear. The choroid was uniformly filled with leucocytes, the vessel walls, remaining normal. The adventitia of the central artery of the retina, as well as the intima, was filled with round cells, which in the intima were irregularly distributed forming projections into the lumen of the vessels.

The arteries and veins in the optic nerve were surrounded by a round cell infiltration, which extended into the nerve fibre layer. The author believes that these appearances are characteristic of syphilitic disease of the ocular vessels, namely—round cell infiltration almost exclusively in the adventitia and intima of the blood vessels.—Miched, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

A Correction. "Naphol," page 227 of the March issue of the HAHNEMANNIAN MONTHLY, should be spelled "Naphtol."

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

HOW DO I CONNECT ZINC WITH ARSENIC? Very easily by its similarity in many ways, and yet absolute independence in other ways. In the first place, arsenic has a wonderful effect upon the skin, and so, you will admit, you cosmetic mongers and skin specialists, has zinc. Think up a cosmetic paste for quick action, like that of taking an eczematic eruption from the face of a Nethersole, where physical comeliness is 95 per cent. of the stage assets, and you will find that zinc in some form forms a part of that paste. Arsenic, too, has its great value in skin troubles, though of a deeper seated variety and usually of a more chronic nature; deep acting and long acting, and we naturally drift into thinking of cancer pastes as the ultimate for this remedy. As we scarcely ever find a hair tonic without cantharides, or a rheumatic dope without wintergreen, so we can equally, rarely find a cancer paste without its startling equivalent of arsenic, however doped. Some of us elders and collection plate passers in the true church of homœopathy still remember how once upon a time Dr. J. S. Mitchell, of Chicago, promulgated the theory that arsenic 2d locally, and arsenic 3d internally, were almost specific for cancer in any form. Unhappily this was gross empiricism, not homœopathy, and so the winds blew and the rain fell and prevailed against it, and it, too, fell into the waters of oblivious desuetude.—Frank Kraft, M. D., in *The Chironian*.

NOSTRUMS.—In this matter, the one regret is that no matter what is said in the medical press about this horrible traffic in human life, it reaches only the doctor who is already aware of the dangers. This statement must be qualified a little; our brothers of the old school are not as rich in therapeutic capital as the new school man and at times no doubt shuts the door to conscience and prescribes the "Persian Balm" under another label. We do not believe he dances to the devil quite as much as the druggists claim—80 per cent. of his prescriptions—but be this as it may, it does not alter the fact that proprietary mixtures are sapping the vitals of the race, hence, they are the enemies of mankind.

Even though the suggestion of prescribing a bottle of patent "dope" ought to, and probably would, bring shivers to an educated new school physician, his duty demands, with increased force, that he fight the evil to the bitter end.

State boards are gradually broadening their authority and the food and drug act, from which so much was expected and so little realized, all help

a little, but education, the dissemination of knowledge that will reach the masses, will eventually bring the drug evil to the guillotine. The dense ignorance of the general public in the matter of drugs, their immediate and remote effects, is a menace to human progress. If this statement is true, and we believe it is true, then the greed of the public press for the revenue resulting from nostrum advertising simply amounts to money traffic in human life! This indeed is a sad encomium upon the benign influence of the press and its claim to broad and liberal education.—*Progress.*

SELECTION OF THE REMEDY FOR EPILEPSY.—By N. B. Delamater, M. D., Chicago, Ill. I have received a good many letters asking me to indicate the proper method for the selection of the indicated remedy in epilepsy.

In order to give my class a better idea as to the method, than I have succeeded in doing previous years, I this year quoted from my case records the following four cases, eliminating all that did not pertain to the selection of the remedy, at the same time keeping all that was essential, or that could be helpful.

It is of the utmost importance, of course, to make a thoroughly exhaustive study from a diagnostic and pathologic point, of every case of epilepsy or epileptoid. After all possibility of the case being any organic disease with convulsions, or the result of any reflex irritation, we have no choice in the treatment except in finding the similimum of the patient, of that particular individual, not of the special epileptic symptoms.

There can be no reasonable doubt to-day that these pure epileptics have as the one great etiological factor a something, we know not just what, that renders the person susceptible to this peculiar manifestation. This same something that "we know not what" causes this person to differ in his total makeup and combinations of life, and its activities from every other living person. It is this "we know not what" for which we must prescribe if we are to be successful in the treatment of the dreaded disease.

Case 1.—Found in the history between attacks and previous to the first. From childhood there had been a tendency to want to be well covered at night, always wanted the bed clothes pulled tightly about the neck. He had always been nervous, rather inclined to be blue, morose, hypochondriacal, hysterical, anxious about many things, and easily frightened. He never felt as well in summer as he did in winter, nor as well in damp weather as in dry. While so careful about being closely covered at night, he did not like a warm room. Inclined to have a dull heavy headache from mental exertion. The appearance was cachectic. He was rather thin, and previous to his first attack had grown very rapidly for two or three years. Was sixteen years of age. In addition I found the aura consisted of a permanent dilation of the pupils for twenty-four to forty-eight hours previous to the attacks, and that the attacks always came on at night. *Argentum nitricum* was clearly the remedy.

Case 2.—A girl thirteen years of age. Had had only four attacks, but all were within thirteen months. No assignable immediate cause and no reflex irritation to be found. There had every time been involuntary discharges of feces and urine. The convulsions had been very violent with a great deal of difficulty in respiration and clutching at the throat. They commenced in the upper extremities, spread to the face and then became

general. In regard to the time previous to and between the attacks I got the following data: Had always been inclined to be absent minded and forgetful. Had rather frequent attacks of nightmare when a young child, with fearful dreams of uncanny things. Had always and still does grind her teeth while asleep. Quite inclined to furious temper. Very nervous and excitable over mere trifles. On several occasions she had swelling of various glands. Caught cold easily from exposure, especially of the head. The bowels while usually regular bothered her often by an ineffectual rather persistent urging. Would often have spells when she did not sleep at all well. Would go to bed feeling very sleepy, but could not drop off to sleep.

She had a large head, blue eyes, and was a blonde. Here we found belladonna indicated.

Case 3.—The attacks always occurred in the night. It was an old standing case. Had had attacks more or less regularly for seventeen years. Sometimes three or four a night for a week or more. At times would skip a week or even a month. That which I considered an aura is a feeling of chilliness of the whole left side of the body, and following the attack there was often a transitory attack of paralysis of the right side. As to the conditions previous to the first attack and between the attacks, noted, were first a marked egotism with this, nearly always very anxious, and worried about himself. As a child had frequent unusual outbursts of temper. Had a peculiar sensation that was quite frequent, nearly always on going into a dark room he would feel as though there was a very heavy weight on the top of his head. Always had very frequent attacks of a cold in his head. If he rested on his arms either lying down or sitting up they became numb very soon. Quite inclined to feel heavy, weak, depressed, which he is able to throw off by volition.

Had as a young boy been quite a somnambulist. Always after a thunder storm had some dyspnoea, at times quite severe, lasting a few hours only. A study of these led me to silica, which was given.

Case 4.—A boy eleven years of age presented. Had attacks once or twice a week; commenced at four years of age, increased in frequency quite regularly. The first five minutes with him determined that he had been taking the bromide treatment.

His whole appearance was as if half asleep, a dull sleepy, drowsy expression. Moved slowly and in a loose jointed way, dragged or shuffled his feet in walking, and talked very slowly and low. I learned that his memory had never been very good. The mother who presented him could not talk or understand English, and this was all I could get at the first interview. I learned later from the physician who referred him to me, that he had never taken a dose of bromide. That while during the last two years he had seemed to grow more dull, yet he had even as a baby acted tired, but developed strongly. His teacher said that while he was slow to comprehend and it seemed hard for him to remember, yet he was an average student as to advancement, and once he got a thing packed away in his mind he retained it. The information from the doctor and teacher, of course, dispelled all idea of bromism, as well as of feeble mindedness. The symptoms I had secured were evidently indicative of his natural condition. I could get no description of the attacks that was of any value. While

the bromide does not usually have any such lasting action, and I could not find in its symptomatology anything like epileptic convulsions, yet this was all the guide I had, and I gave him bromium in potency.

In each of these cases the cure is complete. In none of them has the period of freedom from attacks been less than three years.

My point is that the selection of the similimum must be from the symptoms preceding and between attacks. We must fit the individual.—*Medical Century.*

VACCINATION.—Edward N. Bywater, M. D., Iowa Falls, Iowa. In internal vaccination, I believe, we have a safe method of producing immunity against smallpox. Wherever tried it has proven its efficacy. As yet it has never caused a death, it has never left a trace of tuberculosis in its wake, nor has it been the means of stirring up syphilis or any dread disease. And I believe that one of the principal causes of the rapid increase of the white plague has been nothing less than the infection through vaccination by scarification. And I believe it will keep on increasing just so long as the old method of vaccination is kept in vogue.

The symptoms produced by the internal method are the same as those by scarification, except the sore arm and the dangers of infection, etc. The symptoms produced by Variolinum (30) in cases I have watched were as follows: First would appear a chill, followed in a short time by fever, sometimes both, very marked. Then would come on headaches, backache and a general aching of the body. These symptoms were noted most prevalently in all cases. Then there was malaise, loss of appetite, restlessness, diarrhoea and extreme weakness. In three cases I noted a marked eruption. One case had an eruption very similar to chickenpox, and an allopath whom I took in to see the case went so far as to say that if it worked that well it certainly would produce immunity to smallpox. This same case was quarantined 35 days with a case of genuine smallpox, who by the way had a perfect scar by scarification, done 2 years previous, and did not contract the disease. Neither did the mother who was vaccinated by the internal method and who had never been vaccinated before.

The two other cases were in the same family and would have been quarantined undoubtedly had they fallen into the hands of our friends of the old school. Their eruptions were confined to the palms of the hands and looked very much like pocks. One of them, however, had two small eruptions on the face, but were not marked.

During our vaccination fight at Iowa Falls out of 165 children vaccinated, about 115 were vaccinated by the internal method. Of 100 vaccinated by myself, I kept records and about 92 of them showed signs of the medicine working. That is, sufficient symptoms were produced to warrant immunity against smallpox. Of the 8 remaining cases, part of them had been vaccinated before and some perhaps didn't take their medicine.

Wherever internal vaccination has been used by physicians, and had a chance to thoroughly test it with smallpox, they are very enthusiastic in its use. It will soon be that this will be the only method of vaccination,

because the reasoning laity are going to demand it, and the reasoning physicians accept it, and the fellow with vaccine points will be as obsolete as the man with the leech and lance.—*Iowa Homœopathic Journal*.

ECHINACEA.—By E. W. Capen, M. D. Among the major symptoms collected by Dr. Fahnestock from 25 provers, including himself, are the following:

Dulness in the head, with cross, irritable feeling. Confused feeling in brain, depressed afternoons. Drowsy—can't apply mind, restless, dull headache. Troubled dreams; severe headache in back of head, better on rest. Dull or sharp pain in eyes, worse, reading. Stuffiness in nostrils, nose feels full. Face pale when head aches. Neuralgia of 5th nerve, tongue coated white, gas in stomach, metallic taste in mouth, anorexia, nausea, better lying down. Pain in right hypochondrium, abdomen feels full. Urine—pale, profuse, frequent. Increase of heart's action with anxiety. Pain in small of back, wrists, fingers and knees; cold feet, weakness of limbs, depressed, tired, exhausted, aches all over. Worse after eating; evenings, after physical or mental labor; better at rest. Chills run up back, cold flashes. Itching and burning of skin, pimples on neck and face. Diminution of red corpuscles.—*The New England Medical Gazette*.

THE BRITISH PUBLIC AND HOMŒOPATHY.—In our day the novelty of the subject has quite worn off, and people naturally regard it as an affair for doctors; and the world is full of wonderful things which appeal much more to the public interest than any principles underlying medical practice. It is obvious, therefore, that one cannot really feel sanguine as to the results of pamphleteering and suchlike missionary efforts, albeit I doubt not the ability with which homœopathy will be presented in the forthcoming essays. The modern public cares for none of these things, being concerned mainly about trivial afflictions and—motors. I venture to adapt the following legend from Carlyle as illustrating the general attitude on serious questions (the tribe representing our public, and Moses our apostle of homœopathy). "A tribe of men dwelt on the shores of the Dead Sea; and having forgotten, as we are all too prone to do, the inner facts of Nature, and taken up with the falsities and outer semblance of it, were fallen into sad conditions—verging indeed towards a certain far deeper Lake. Whereupon it pleased kind Heaven to send them the Prophet Moses, with an instructive word of warning, out of which might have sprung remedial measures not a few. But no: the men of the Dead Sea discovered, as the valet-species always does in heroes and prophets, no comeliness in Moses; listened with real tedium to Moses, with light grinning, or with splenetic sniffs and sneers, affecting even to yawn; and signified, in short, that they found him a humbug and even a bore." Certain it is that our public have neither time nor inclination for the perusal of instructive "tracts." It may be that the subtle teaching and philosophic spirit of homœopathy do not in any way appeal to a materially-minded generation. Nowadays, too, there are so many cults in the field, each clamouring for recognition as the way of truth and healing, success—financial at least—being achieved by the most exuberant verbosity (e. g., Christian Science). Amongst so many claimants, the plain man is apt to be a little bewildered and his interest in all "pathies"

naturally wanes. Such, at any rate, are my own impressions of the situation, although it is far from my wish to enact the role of Cassandra. I am quite prepared for the usual retort courteous—"You're a pessimist;" but I maintain that half-truths concerning such matters are more delusive than fiction.—General Correspondence, *Homeopathic World*, March 2, 1908.

NATRUM MURIATICUM.—By F. M. Padelford, M. D. A craving for salt is evidently not generally recognized as a characteristic of this remedy. In Boenninghausen's Pocket Book only Cal. c., Carbo Veg., Causticum, Con., Nit. ac., Phos., and Vertr. a., are given as having the symptoms. In Boger's larger work Arg.-n., and Thuja are also given, but not the Nat. mur. Boericke, H. C. Allen, Hering, Boericke & Dewey, and Nash do give this as a symptom of Nat. mur.

As a symptom expressed as "a craving for salt" it is apparently of no unusual significance. But, if as a result of such a craving, salt is eaten in immoderate amounts, it is possible that the value of the symptom is much enhanced.

Frequent cold catching without apparent cause should suggest the remedy, as should either an aggravation or an amelioration at the seashore. Loss of taste and smell is said to be characteristic. In one case in which the medicine seemed to act very favorably, I gave the remedy regardless of an opposite condition—a hyper acute sense of smell. The taste was impaired, not lost.

The mental symptoms are similar to and should be compared with those of *ignatia* and *pulsatilla*.

The headache in the forehead "with a feeling as if it would burst, when coughing," is not unlike that of *bryonia*. In one case of influenza, the absence of smell and taste with just this kind of headache, seemed to me to indicate *natrum mur.*, which I gave, but with negative results. *Bryonia* relieved the headache almost immediately and the other symptoms in a comparatively short time.

The fissured condition of the lip suggests the need of a comparison with nitric acid.

The follicular pharyngitis accompanying a hemorrhoidal condition, and with a pain low down in the back, may find its remedy in either *natrum mur.*, or *aesculus-hip*.

The digestive disturbance resembles that of *lycopodium*, and *sepia*.

In diseases of the chest, Dr. Brigham compared *stannum*, *causticum* and *phosphorus*. Perhaps we should add *bryonia*.

In the treatment of diseases peculiar to women it is even probable that *sepia* is frequently prescribed when *natrum muriaticum* should be given instead.—*The New England Medical Gazette*.

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REMARKS ON THE GENERAL MANAGEMENT OF PUERPERAL CONVULSIONS.

BY

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(Read Before the Homœopathic Medical Society of the County of Philadelphia.)

EVERY one who has given serious attention to the subject of eclampsia must have been impressed with the vast amount of labor unsuccessfully expended in the endeavor to solve the enigma of the etiology of this disease. It would be no trifling undertaking even to review in brief the scientific work and the various theories depending upon it, which have been multiplying ever since the time when Lever wrote about the relationship existing between albuminuria and eclampsia, down to the present time when the inquiry is conducted almost entirely along the lines of biochemistry. And yet eclampsia has been known for centuries under various terms and is ever-present with us to-day, and must be treated. At the time when the more exact knowledge of the present day concerning the course of the disease and the finer distinctions of its pathological anatomy, were not at the disposal of the attending physician, he was of necessity compelled to do the best he could within rather narrow limitations, and no alternative remained for him but to treat the patient strictly symptomatically. Moreover, he had no large collected series of cases upon which to base his treat-

ment, but rather followed the guidance of recognized individual authority. Of course, if the truth be told, we are to-day not much better off, for neither have we been able to determine the nature of the toxic agent causing eclampsia; in a measure also we are still compelled to treat the disease symptomatically; but in justice to ourselves we must at least say that at present we know somewhat more of the pathogenesis of the disease, and we have at our disposal a vast array of literature dealing both with its experimental and statistical aspects.

One of the greatest accomplishments achieved in modern times is the establishment of the fact that puerperal eclampsia is not a disease which effects its destructive and often fatal changes in the body in some vascillating and uncertain way; but we may say with much assurance that there is a definite series of lesions characteristic of eclampsia; or in other words that eclampsia has a definite pathological anatomy. The older authors were not of this opinion, but it is now certain that a competent pathologist would be able to determine the cause of death in a case of eclampsia. The importance of this fact might not appeal to some, and indeed it has not been sufficiently emphasized of late, but every sincere student of medicine must hail with much satisfaction the establishment of a truth, which at its smallest estimate at least places us upon some stable ground.

Of course, the present occasion and the real intent of this paper will not permit us to tarry long in examining the histological lesions induced by eclampsia. But to summarize them in the briefest possible terms, we might say that the essential lesions of eclampsia consist in minute capillary thrombi with hemorrhagic infarctions, surrounded by tissue necrosis. These lesions are found to be the same in character and quite constant in the kidneys, in the liver with equal frequency, and in the brain. They also occur in the lungs, in the spleen, and in other organs. An important fact associated with these lesions is that they are not attended by evidences of inflammation, nor by tissue proliferations, except as secondary processes. These lesions lead, as can be readily understood, to extensive destructions in vital organs, and these in turn induce other conditions not compatible with life. Manifestly we have to deal here with a toxic agent inducing a general toxæmia, widely disseminated through the body doubtless by the blood-current, and this poison is so rapid in its destructive action, that there is not

time to induce the ordinary reactive evidences of inflammation. The changes are toxic, degenerative, but not inflammatory. Some one has said that they bear much resemblance to those occasioned by the venom of snakes.

We may say further, in drawing this outline picture of eclampsia, that it is a disease seen only in connection with the pregnant state and at no other time, having to do therefore with the development of the ovum; the distinctive manifestations of the disease, namely, the convulsions, usually cease with the emptying of the uterus; that the body rapidly recovers if the first effects of the poison be overcome, recovers in fact, with a rapidity not paralleled by any other disease of equal severity. Climatic conditions have not been recognized as having a constant influence, but strangely enough, cases do appear in groups. This picture of eclampsia would not be complete without at least a passing reference to the fetus; for in the child of an eclamptic mother similar, in fact almost identical changes are commonly found in the corresponding organs. Of the nature of the poison producing these distinct and widespread changes we can say but little with certainty; there seems, however, to be some analogy between the lesions of eclampsia, or pernicious vomiting of pregnancy, and of acute yellow atrophy of the liver. It is largely because of this observation, in conjunction with the fact that almost all other fields of research have been exhausted, that investigations have of late been directed almost entirely along these lines. Whatever be the results finally materializing from this inquiry as to the nature of the toxic agent, the fact remains that for the present we have no alternative but to shape our treatment in conformity with the conception that this toxæmia of pregnancy represents a state demanding the application of such principles as relate to other forms of poisoning.

Prophylaxis.—The first requisite in prophylaxis is to maintain the action of the excretory organs. The urine should be examined at frequent intervals to determine the presence of albumin and renal casts and the amount of urea excreted. The ratio of the forms of excreted nitrogen is now receiving attention in studying the katabolic processes in pernicious vomiting of pregnancy, and somewhat also in eclampsia, but we cannot go into this matter now. While, of course, it is true that the above named urinary changes do not furnish an infallible index of threatened eclampsia, it is certain that in many

cases renal insufficiency or irritation are indicated by these examinations, and the necessity for treatment suggested. The condition of the bowels requires attention, and the patient should be so instructed. If possible, it is best to regulate the bowel function by properly selected diet, but this failing an occasional mild cathartic is called for. Meat in excess should be prohibited. A diet consisting largely of milk is undoubtedly best. I am very certain that fruit, in every form obtainable, is not used nearly as frequently nor in the quantity most advantageous from every consideration of health. Regular, warm bathing should under no circumstances be neglected. Patients should avoid getting wet, or suppressing the action of the skin in any other way; they should also give heed to the ordinary precautions against catching cold. Reverting for a moment to diet, all pregnant women should give much more attention than is commonly the case to the food they eat. In recalling the cases of eclampsia seen in counsel, my attention has been attracted by the frequency with which the history of the case has disclosed that the patient on the night previous to the attack has partaken, often immoderately, of some such coarse food as cabbage. A suggestion entitled to pronounced emphasis in prophylaxis, is that patients should have distinctly impressed upon them the importance of immediately calling the attention of the attending physician to their having severe headache, or disturbed vision, or to gastric disturbances, vomiting, etc., without dietetic errors. Surely, it is self-evident, in giving these instructions to a pregnant woman, that not the least intimation of the significance of these premonitory symptoms should be allowed to reach the patient. The matter should be emphasized, but without the least explanation.

If convulsions threaten, the treatment must be prompt and vigorous. If albumin be found in the urine, and if odema, not at all uncommonly found about the ankles during pregnancy, be increased; and particularly if the four cardinal symptoms of severe headache, disturbed vision, epigastric pain, and facial oedema be present, the case is urgent. The patient should then be kept in bed, and the diet restricted to milk. A brisk cathartic should be given. The action of a cathartic is imperatively called for, and some recent experiences have constrained me to urge this matter with emphasis on this occasion. I am quite certain that the prompt administration by the attending physician of a brisk cathartic had much to do with the favor-

able outcome in a case recently seen in consultation. In fact in recalling the cases where it was my misfortune to witness a fatal termination, it was impossible to get the bowels to move from the measures used at the time. This observation may or may not be significant. Diaphoresis should be favored either by a warm bath, provided there be no contraindications, followed by a glass of hot milk, and the patient then warmly covered with blankets; or the hot pack may be used. I regard the wet pack as disproportionately troublesome to the amount of good accomplished. I am also in the habit of giving a diuretic. If no other remedy be suggested I often give cuprum arsenicosum 2x, or mercurius corrosivus 6x. This is the routine treatment pursued in my charity work, and has been effective in a number of cases which certainly were dangerously near convulsions. The effect of this treatment usually is to remove the oedema; the urine is promptly increased, and the headache disappears. It should perhaps be stated that this treatment is not invariably efficient in preventing convulsions. In one instance this treatment failed completely, and that too in a patient who received exceptional attention, and she developed pronounced eclamptic symptoms. A number of writers report having had the same experience.

If convulsions supervene the attending physician is confronted by a difficult task, and one which will tax his resources to the utmost, both as a therapist and as an operating obstetrician. Time is also a factor. If the statistics of this disease teach anything, they indicate that energetic and judicious treatment instituted early reduces the mortality very materially, while the latter is still quite high in that class of cases brought under modern treatment after some hours have elapsed.

The general management of a case of puerperal convulsions demands the removal of the cause, the elimination of the toxins from the body, and the cessation of the convulsions and other symptoms. The indications just named are stated in the order of their importance, but for practical purposes it will be best to consider them in the reverse order; since in this order they can be most quickly carried out. For example, we can institute treatment for the purpose of stopping the convulsions before we can empty the uterus. It should be stated also that it is of much importance to keep clearly before the mind just what

it is that we endeavor to accomplish; otherwise the treatment becomes perfunctory and probably therefore inefficient.

The first indication then is to stop the convulsions. There is a strong temptation at this point, to digress somewhat from the straight and narrow way which leads to the unfolding of an unembellished tale; for it is intensely interesting to examine the procedures of the older writers, and see just how they combatted this disease; but this matter though containing much that is highly instructive must be set aside in order to say concisely, that it is possible in the large majority of instances to stop the convulsions by administering hypodermically five minims of a strong tincture of *veratrum viride*. If ten drops be given in this way the pulse will show a material change within a half hour. Dr. Jewett, whose name is intimately associated with this use of the drug, has said the convulsions cannot recur when the pulse is kept below sixty. Not to force the physiological action of the drug, I am in the habit of repeating the dose if the pulse rise at all above eighty per minute. The action of this remedy is to diminish the rate and increase the strength of the pulse, and to overcome the vasomotor spasm characteristic of the eclamptic state, and so destructive to the nerve centers and to the heart. The hot pack is useful, but the wet pack is disproportionally troublesome.

The judicious inhalation of chloroform is also called for, and the convulsions may in a measure be modified. It is not possible to prevent the convulsions entirely by moderate inhalations of chloroform, for mostly they recur without warning. If the spasm be preceded by an aura, as sometimes happens, so much the better. Prolonged narcosis from chloroform is undoubtedly injurious especially to the kidneys, and for this reason some writers abroad proscribe its use in this disease. During the spasm chloroform is contraindicated, as it would be in any other cyanotic or comatose state. Ether is not so advantageous because of its slower action, its irritant effect upon the respiratory tract, and because of the natural later danger from oedema of the lungs.

Chloral is a drug formerly much used. It is interesting to study the results obtained by Charpentier from using chloral in eclampsia. The action of chloral may be regarded as practically the same as that of chloroform but more continuous, and it will have the same effect to diminish nervous irritability. It

may be administered in doses of from fifteen to sixty grains by enema.

In morphia we have a drug which has served a useful purpose in this disease, and has saved life. Its use is not so commonly advocated as formerly, but it still has a place in the therapy of this disease. I wish there were time to relate the incidents of a case of eclampsia recently occurring in an isolated region many miles from medical aid, and when a physician did see the case he administered a full dose of morphia and then had the patient transported to a hospital where premature delivery was induced and life saved. Dr. Clarke, of Oswego, is credited with having proposed the systematic treatment with morphia, and Veit used it extensively. Morphia in combination with hyoscine has also been used, but on account of the depressing action on the heart, the action of the latter remedy must be watched. The tendency to-day is to withhold all narcotics from eclamptics, because it is realized that the system is already overburdened with poisons. This is also in conformity with the modern tendency to avoid unnecessary drugging.

The indicatio morbi is met by an endeavor to eliminate the poison from the system. Assuming that it was not possible to administer an active cathartic just before the spasm, or if the cathartic has not had time to act, a high enema should be given at once. The compound enema now so commonly used will be found effective and rapid in its action. As before stated the inducing of a bowel movement is imperative. It is a most important matter that we desist from all attempts to induce an unconscious patient to swallow, for any purpose whatever. This rule precludes the use of elaterium and of croton oil in many cases, and since we know more about the use of the compound enema, especially the high compound enema, we may do without these drugs. If the patient can swallow, elaterium is called for, and when it acted I well remember in my earlier cases that the improvement was so great as to materially diminish the concern about the outcome of the case.

In speaking of enemata we should recall the beneficial effects of the prolonged saline enema which has proven so successful in septic conditions. The very slow administration of salt solution will of course not be possible in a patient affected by convulsions, but the treatment should be used if at all possible. If the convulsions or the restlessness of the patient preclude the

ideal use of this treatment, we should at least make use of frequently repeated small salt water enemata. However, injecting large amounts of salt water into the bowel is not wise, for in some instances it has been found post mortem that large amounts thus used were not only not absorbed, but had caused internal injury from over distention of the colon. Saline enemata are administered for the purpose of eliminating the toxins. Just how this is accomplished we do not know, neither are we acquainted with the form in which the eclamptic toxic agent is thrown out, for the molecular concentration of the blood is not increased in eclampsia, and yet it is certain that the excretion of the urine is greatly augmented by the use of saline enemata and a diuresis is produced just like that occurring when a patient recovers from eclampsia. For these reasons we must tentatively maintain the correctness of this treatment, which clinically has proven an efficient adjunct.

It is universally recognized that we are at present compelled to regard eclampsia as representing a toxæmia; every indication points to the fact that a toxic agent circulates freely in the blood; the molecular concentration of the blood is not altered by this unknown substance so that it exists in a gross molecular form, as is said; the same is true of the urine, so that it is not excreted in the urine in such form as to be readily recognizable there. Considerations of this sort, in addition to former clinical experiences have induced a number of obstetricians of the present day to turn anew to a procedure often practiced in former days, but for entirely other purposes. I refer to blood-letting. Now there is no procedure in the history of medical practice, aside from the use of mercury, which has been so thoroughly abused as has venesection. There is much interesting but very unpleasant reading to be had about venesection, and it is not strange that conscientious physicians have looked upon venesection with considerable hesitancy. Parvin has admirably summarized the situation when he said: "Doubtless our fathers were wrong in making venesection the common remedy in eclampsia, but their sons are equally wrong in entirely rejecting it." Of late years I have regarded venesection with increasing favor, and believe it entitled to consideration in selected cases. In a number of instances and in most severe cases coming to me recently, I have opened a vein, removing ten or more ounces of blood, and have not encountered any evil effects when used to this extent. In one large plethoric

woman the result was so prompt as to be spectacular. In that instance the blood was removed quite rapidly, and from that and other experiences I incline to emphasize the rapidity of the removal of any blood taken. The effects obtainable from venesection are that a certain amount of toxins are removable from the body; there is an immediate favorable change in the woman's appearance, particularly in the cyanotic condition of the face; the rigidity of the muscles is relaxed; the spasms quite often cease, some times not to return; the coma yields; and the pulse, of course, loses its tension. Some authors incline to limit its indications to preventing oedema of the lungs, but if the procedure be regarded at all with favor, it should be used long before the advent of this serious condition. It should be used when the attacks rapidly recur; also when attacks are frequently repeated after the birth of the child, particularly when there was not much blood lost at or after the delivery; and when the pulse retains its tenseness.

Conjoined with venesection, we have in the intravenous injection of saline solution a treatment which requires no apology. Its beneficial effects as seen in septic conditions from other causes, are amply sufficient to justify its use in this disease. The effect of this treatment is to materially dilute the blood; it increases the excretion of urine; improves the pulse; induces sweating; and produces thirst.

Some facts in the study of the function of the ductless glands have been applied to eclampsia. Thus removal of the thyroid and parathyroid glands gives rise in rabbits to lethally terminating tetany. There is normally a hypertrophy of the thyroid gland in pregnant women. One writer observed that twenty women in a series of twenty-five cases did not have this normally appearing thyroid hypertrophy, and in them albumin appeared in the urine and convulsions developed. Thyroid substance is an ideal vaso-motor dilator, and by acting in this manner stimulates the kidneys and the skin to perform their functions. In a number of cases of eclampsia where an extract of the parathyroid gland was used, one constantly observed result was a great increase of the urine. This one observation is quite significant, for we know that one of the most striking phenomena and one of the most reliable signs of recovery from eclampsia is diuresis. A recent writer said that the unusually rapid removal of symptoms of intoxication attracted his attention, as did also the rapid improvement of the pulse in

frequency and quality, in addition to the instant cessation of the convulsions. It is not possible as yet for me to report much personal experience with this promising substance, but I may safely claim to have seen the beneficial effects as regards very free diuresis. This matter appears well worthy of careful study.

The removal of the cause is paramount in every disease, and is especially called for in any condition recognized as a toxic state. It is certain that eclampsia is in some way intimately associated with the processes of reproduction, for it is never found at any other time. Now whatever may ultimately prove to be the explanation of where the fault lies, whether induced by defective metabolic processes in the fetus, or whether the placenta be at fault, or whether the added demands, made upon the maternal organism by the pregnant state in its entirety, cannot be met because of some impairment of vital processes whereby some toxic intermediary substance of metabolism are liberated, the clinical fact is undisputed that when the fetus dies or when the uterus is emptied the convulsions cease in the majority of cases. This clinical observation is the foundation for the generally accepted treatment to empty the uterus at the earliest possible moment compatible with the safety of the mother. It has been found that after delivery the sensorium rapidly clears, the disturbances of vision disappear, the oedema lessens, the urine becomes profuse, and the albumin disappears. But emptying the uterus should always mean conservatism in its most highly developed form. In many instances the convulsive attacks induce labor, and the child is born with surprising rapidity. In such cases the indications are simply such as attend the conduct of a labor under normal conditions. But if labor is not thus induced, we encounter considerations of the most weighty sort, and such as in themselves constitute material for a discussion much more extensive than we can give the matter at this time. Briefly stated, that method of delivery should be selected which can be accomplished with the least possible injury to the patient.

THE HOMŒOPATHIC PHARMACOPEIA, A PLAIN STATEMENT OF FACTS

BY

J. WILKINSON CLAPP,

(Secretary of the Pharmacopeia Committee of the American Institute of Homœopathy.)

IN the *Homœopathic Recorder* of February 15th, 1908, there appears an article or editorial under the title "The Pharmacopeia Question Again," which is to all intents and purposes a bitter attack upon the Homœopathic Pharmacopeia of the United States with a view to preventing its recognition by Congress as the legal standard in homœopathic pharmacy, and equally discrediting it with the profession as the exponent of fundamental homœopathic principles in the preparation of drugs.

The innuendoes and insinuations incorporated in this attack may well be met with contemptuous silence, but any misapprehensions of the truth which may arise from perversions of facts or incomplete or misleading statements should be removed in the interests of all practitioners of homœopathy.

The publishers of the *Recorder*—by an interesting coincidence also the publishers of the *American Homœopathic Pharmacopeia*—have persistently opposed the new pharmacopeia ever since its publication, and to this opposition any delay in its full acceptance may be largely or wholly attributed.

But two reasons for opposition have been advanced, viz. :

First, that the new pharmacopeia failed to provide rules for the preparation of dilutions from triturations of insoluble substances, this objection is no longer tenable, as the second edition of the pharmacopeia includes such a rule.

Second, that the tinctures as made under the new pharmacopeia differ from the preparation used by the provers. In other words, they object to the preparation of certain tinctures by maceration instead of the old Hahnemannian method of expression.

This, then, is their sole basis for opposition to the new pharmacopeia as expressed by them in the following clause which we quote: "The Homœopathic Pharmacopeia of the United States changes the methods of the preparation of homœopathic medicines, hence the remedies prepared by its formulæ are di-

vergent from those prepared by the provers from which the provings were made."

This same objection has been offered by members of this house in papers read before the American Institute of Homœopathy, both before and after the publication of the pharmacopeia. The first article was read before the World's Congress at Atlantic City, in June, 1891, by Mr. A. J. Tafel, in a paper entitled, "The Pharmacy of Tinctures," and again in a paper read at the Institute meeting in June, 1899, by Dr. F. A. Boericke, entitled "What Should Constitute an Official Homœopathic Pharmacopeia."

At each of these meetings the subject was discussed and the action of the Institute in the first instance was such as to leave the Pharmacopeia Committee free to carry out their original instructions, which were to adopt the English system of tincture preparation, and in the second instance the Institute's action was overwhelming in favor of sustaining and approving its pharmacopeia.

It is of interest to note here, that a similar controversy has taken place in Germany within the past few years. An Official German Homœopathic Pharmacopeia has been issued by a commission made up of physicians and apothecaries and having the sanction and approval of the German Government it has become the official and accepted homœopathic pharmacopeia of the Empire.

At the time of its publication a small minority of this Commission were strenuous in their efforts to introduce into its pages a continuance of the old method of expression in the preparation of the few original fresh plant tinctures introduced by Hahnemann, but they were overruled by the better judgment of the majority and this decision is noted in the introduction of the work.

In France also an official homœopathic pharmacopeia has likewise been published and in this work the old method of making tinctures by expression is not recognized.

It is further, an indisputable fact that at this time, the only homœopathic pharmacopeia in use either in this country or in Europe that retains the method of expression in place of maceration in the tincture making process is the "American Homœopathic Pharmacopeia." Certainly these facts indicate that homœopathic pharmacy has made a decided advance throughout the world and has left the above mentioned work behind.

or that it has most grievously retrograded leaving this treatise as the only exponent of faultless homœopathic pharmacy.

A word of explanation may here be necessary to more clearly define the nature of a tincture made by expression. Hahnemann's method of expression is best described in his own words. In his *Materia Medica*, Vol. 2, page 37, under *Helleborus niger*, he writes: "Express the juice of the recent plant and mix it with equal parts of alcohol" and this same language is applied to the directions given under this class of preparations.

It is to be noted here that the juice is the only part used, whereas, in the new pharmacopeia and in fact as previously stated in all pharmacopeias other than the American Homœopathic Pharmacopeia the drug is subjected to the process of maceration; that is, the plant after being ground, is put in the alcohol for a certain length of time so as to extract all of its medicinal qualities. In other words, a tincture made by expression simply, contains the soluble constituents of the juice only, whereas a tincture made by maceration contains all the soluble constituents of the drug.

Now let us consider how these drugs differ in methods of preparation from the substances used in the provings.

The objection raised is based entirely on the assumption that all of the provings were made with tinctures prepared by Hahnemann's method of expression. This assumption is entirely erroneous as even the original provings made in the days of Hahnemann were made not only with tinctures but with crude drugs and a variety of other forms of preparations.

Hahnemann prepared but twenty-six tinctures by expression, and five of these same tinctures he prepared either by expression or maceration. This should clearly indicate that Hahnemann did not object to substituting maceration for expression at least in these cases. For further and conclusive evidence that Hahnemann did not object to such changes let us quote from his directions for the preparation of *euphrasia* in his *Materia Medica*, Vol. 2, page 132:

"Express the juice from the whole plant and mix with equal parts of alcohol. Toward the end of summer the juice is so tenacious that the plant has to be reduced to a pulp and alcohol added before the juice can be expressed." Now if Hahnemann considered that the addition of alcohol direct to the plant was to result in taking up substances not desired, he certainly

would have noted the fact, and directed that tinctures of this plant should be gathered and prepared early in the season.

To show the absurdity of the claim that the provings of these drugs were made exclusively from Hahnemann's "expressed" tinctures and that a macerated tincture varies essentially from the drugs used in the proving. We will consult our copies of "Allen's Encyclopedia" or the "Cyclopedia of Drug Pathogenesis" and ascertain the sources of our *Materia Medica* of these drugs.

We will consider but two here—first, *Belladonna*. The pathogenesis of this drug in Allen's Encyclopedia is taken from 280 sources which include provings and poisoning from a variety of preparations, including, tinctures of the plant, of the root, infusions, the crude drug, such as the leaves and the root, and even plasters—these include many preparations varying essentially from an expressed tincture and which must of necessity include the soluble constituents of the entire drug. We find on reference to *Aconite* also that some of the most important provings were made with other preparation than the tincture, such as the "extract," the "crude root," "*Aconite* with Antimonial Wine" and it is even noted that some of the "*Austrian Provings*" were made with preparations other than the tincture.

These facts certainly do not demonstrate any proof of the contention advanced, or that it is possible to deprive a plant by the process of maceration, of any principle that will change its character as a medicine, on the contrary such facts would seem to emphasize the desirability, if not the necessity, of preparing our tinctures so that they will contain all of the active principles of the drug.

If the contention of the *Recorder* is correct we can draw but one conclusion, namely, that a rearrangement of the symptomatology of our *Materia Medica* is imperatively required. As for instance, under *Belladonna* we might profitably have indications illuminatingly classified under the following subdivisions:

Belladonna—tincture Expressed.

Belladonna—tincture Macerated.

Belladonna—Extract.

Belladonna—Infusion.

Belladonna—Inspissated Juice.

Belladonna—Plaster.

The *Recorder*, the offspring of the publishers of the *Ameri-*

can Homœopathic Pharmacopeia recognizes in the latter the standard of authority in homœopathic pharmacy and extensively advertises its products as "Hahnemannian Tinctures" claimed to be made in strict conformity with the rules of Hahnemann. A comparison between the methods of Hahnemann and of the *Recorder's* oracle shows exactly how far the claim of identity is justified.

Hahnemann gave directions for the preparation of only 47 tinctures, of which 27 were made by expression as already described, but of these 27 he made it optional in five cases to use either fresh or dried plants and these tinctures of dried plants he prepared by maceration in the proportion of 1 to 20 (that is one part drug to twenty of alcohol). Now as this is the class of tinctures to which the name "Hahnemannian" can properly be applied we will first compare this class with the rules of the *American Homœopathic Pharmacopeia*. This pharmacopeia prescribes rules for the preparation of tinctures under four distinct classes, the first three of which apply to tinctures prepared from fresh (not dried) plants.

All of these 27 tinctures come under Class No. 1, the rule for which, follows closely Hahnemann's directions for this class.

We find on examination, however, that in the preparation of seven of these tinctures they ignore Hahnemann's directions and instead of using his method of expression they employ maceration. These seven include some of our principal remedies, namely, *pulsatilla*, *rhux tox*, *stramonium*, *verbascum*, *cannabis*, *arnica* and *euphrasia*.

It would seem impossible to advance any good and sufficient reason for treating these seven Hahnemannian tinctures by a different method from that employed for the remaining nineteen; certainly if there is any valid reason for condemning the use of maceration in the preparation of any of Hahnemann's tinctures it must likewise apply to these seven medicines; and yet this is the sole reason advanced for their condemnation of the new pharmacopeia.

As a matter of fact there are but eighteen of the original Hahnemannian tinctures which are made by expression according to the directions of this pharmacopeia, namely:

Aconite, *belladonna*, *bryonia*, *chamomilla*, *clematis*, *cicuta*, *conium*, *cyclamen*, *digitalis*, *drosera*, *dulcamara*, *hyoscyamus*, *menyanthes*, *ruta grav*, *sambucus*, *stramonium*, *taraxicum*, *ver-*

basum, and it is of interest to add that nine of these are made from plants not indigenous to this country and the tinctures are therefore imported from Germany.

Now, when we learn that the eighteen medicines enumerated above are the only tinctures in the entire pharmacopeia that are prepared according to Hahnemann's rules and methods, the absurdity if not the insincerity of their claim becomes apparent.

Of the rules given in this work under Classes 1-4 there is not but one that conforms to Hahnemann's.

As further evidence, let us consider their treatment of that distinctly Hahnemannian remedy "sepia." Hahnemann used this drug in the form of trituration and he states that "it is insoluble in alcohol," see Chronic Diseases, Vol. 5, page 142. It is also insoluble in water after drying, notwithstanding this we find sepia included among the list of tinctures and directions given for its preparation from the dried drug with ten parts of alcohol. Here is a case where a tincture is prepared containing none of the principals of the drug itself and none of the essentials used in the original provings: further, its drug strength is classed as ten per cent.

This estimate of drug strength appears absurd, still it harmonizes with the estimate given for calcaria caustica solution in dilute alcohol as 1-10 when this salt is soluble in cold water in the proportion of 1 to 750 and entirely insoluble in alcohol.

It may be said that most of the provings of sepia were made with dilutions, this is a fact, but these potencies were made from triturations which had received the benefit of Hahnemann's method of comminution.

The greater part of fresh plant tinctures are prepared by the American Homœopathic Pharmacopeia under Class 3, by the addition of two parts of alcohol to one part of prepared plant. This is entirely different from any rule of Hahnemann's.

Again, most of the tinctures made from dried drugs are prepared according to this pharmacopeia in the proportion of 1 to 5 whereas with but few exceptions Hahnemann made these tinctures in the proportion of 1 to 20 as he well knew that by the process of maceration it was impossible to exhaust the drug in any such proportion as 1 to 5. In Vol. 2 of his Chronic Diseases will be found this general rule, viz.: "All those drugs which can only be had dry should be pulverized, and 20 parts of alcohol should be added to one part of the powder."

As the criticisms offered by the *Recorder* tend to show that

the new pharmacopeia of the Institute was widely at variance with the rules of the founder of homœopathy, let us now compare this work with the directions of Hahnemann with reference to the drug and the part to be employed. The result of a careful comparison with all the medicines named by Hahnemann will show but three changes, as follows:

	Hahnemann	H. P. of U. S.
	used the	directs use of
Chelidonium	Juice of root	Plant including root
Rhus tox	Juice of plant	Bark
Mezereum	Dry plant	Fresh leaves

These changes were made for valid reasons, changes to which the *Recorder* cannot consistently take exception since the same variations from Hahnemann appear in the American Homœopathic Pharmacopeia.

The Homœopathic Pharmacopeia of the United States is the product of the American Institute of Homœopathy. It is the result of many years of labor on the part of a committee consisting of six physicians, all of whom were students of materia medica, all having been professors of materia medica or of chemistry, pharmacy or botany; also six pharmacists, all representing different interests and yet all having a single interest in its perfection.

The result has been the production of a work that has received the highest encomiums by competent critics and one that has raised homœopathic pharmacy from a level of guess work and uncertainty to that of scientific accuracy.

The objections that have been raised to its general acceptance have been of the most trivial nature, as has been evidenced in the foregoing pages.

The effort has been through gross misrepresentation to prejudice the minds of the medical profession and to endeavor to block the wheels of progress by sordid commercialism as other means were not available.

A PATHOGNOMONIC EYE SYMPTOM IN RABIES.—W. B. Coakly describes a pin point contraction of the pupil which was uninfluenced by light or by drugs, but gave way to dilatation before death, that he has met with in rabid dogs and consider pathognomonic. Attempts to locate the cause of the contraction by examinations of the brain and cord during life were fruitless. Attempts to produce a similar contraction of the pupil in normal dogs by means of drugs also failed. The clinical pathological findings in the eyes of 114 rabid dogs are given in tabulated form.—*Annals of Ophthalmology*.

THE MEDICAL MAN AND PSYCHOLOGY.

BY

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THE swing of the pendulum in the direction of specialization would seem to have about reached its limit in the beginning of the twentieth century, and we may soon look for a shorter arc in many pursuits.

Especially is this true in certain lines of investigation on that debatable borderland that lies between normal and abnormal psychology.

Hitherto the psychologist, and especially the psychologic philosopher has held aloof from the medical side of the problem. From his standpoint the differentiation between normal and abnormal was so unquestionable, that he has not hesitated to assume metes and bounds to his territory, and held only distant relations with the abnormal,—the medical side.

The medical man, on the other hand, has regarded many of the deductions of psychology with a shrug, and turned to other things content to let the self-satisfied one find out his own mistakes, which in due time are bound to appear. For nothing built on false relationships,—or to be more exact, on false concepts of actual relationships, can stand the searching tests of time, that tries all things.

A third factor has entered into many phases of medico-psychologic research,—the factor of religion.

For many generations medical men have realized the close relationship between religion and insanity. Religious insanity has a regular standing in all the literature of mental diseases. Insanity as a result of religious revivals has so many examples that the tendency has ceased to be questioned. But where the abnormal begins, and sanity ends, has not been even approximately determined.

The phenomena of this form of insanity is of no less interest to psychology than to medicine; still, there has been no genuine acknowledgment of the mutual interest in a combination of effort to determine even approximately the limits of sanity and insanity. The whole matter has been for the most part left to that ubiquitous personage, the general public. When a disturbing case appears, one that interferes with the orderly

conduct of society, two medical men of general attainments, often very general,—have sufficed to put the troublesome one where liberty and the free pursuit of happiness was an unknown thing, and where often life itself became a burden.

The adding to the committing party of a judge skilled in the law, but wholly innocent of medical or psychologic knowledge, has not materially tended to arrive at the actual mental status of the individual concerned.

Such a thing as a psychologic expert on insanity among psychologists proper, is so far as I am aware, quite unknown to the courts of law. He has not been called upon to testify to the sanity or insanity of the citizen about to be deprived of his constitutional rights. And yet, why not? Is it because he has only been a dabbler, if even that, in the medical knowledge of insanity, as the medical man has been only a dabbler, or less, into the science of psychology?

Again, on the religious side the medical man and the ecclesiast have not been on the most confidential terms.

The ecclesiast has always looked askance on the man of medical lore as a party to be respected on account of liability to trespass; and the disciples of Galen have not been over considerate of the clergy on account of so many grave claims of powers of healing, and various occult views on physiologic science.

The fact is no one is competent to judge of a matter without experience in it, that is without expert knowledge. Sanity and insanity in the matters of daily life, or in matters religious, requires the expert knowledge of the psychologist, as well as the knowledge of medicine and morals.

Occultism belongs no more to psychology than to medicine; nor to religion more than to psychology; nor to psychology more than to the other two sciences; for there is a science of religion as well as of psychology or medicine.

The trouble is, that medicine is yet too much an art, and too little a science: that psychology is too much of a fad based on personal elements, having too little based on demonstrable experience: that religion has too many preposterous claims to independence as being a reserved province, exempt from the same processes of inquiry, investigation, logical analysis and deductive conclusions that apply to all other activities of man.

The borderland of each of these three activities overlaps the

boundaries of the other two, to such an extent, that to know one of them as a master critic and a competent authority, one must be competent also in both the other fields. Any less breadth of knowing is sure to lead to misjudgment.

A CONSIDERATION OF THE C-E ANÆSTHETIC MIXTURE.

BY

ROBT. LOWELL WOOD, M. D., BROOKLYN, N. Y.

Read Before the Homœopathic Medical Society of County of Kings, Feb., 1908.

ANY paper on anæsthesia must largely repeat that which has already been said, because the limited number of observers in this field necessarily observe the same phenomena, and follow the same basic methods of administration. However, the writer desires to ask your attention to a brief consideration of the C-E mixture and its value. The use of this mixture appeared to be largely confined to graduates of the Cumberland Street Hospital, until the writer opened Hewett's admirable "Anæsthetics," and found that the latter had used it for several years with satisfaction. The writer has been at some pains to question the profession first, as to their reasons for using C-E, and second, as to their belief as to whether or not a new chemical compound was formed by the mixing of chloroform and ether, heat and fusion of the two elements, without subsequent separation, being observed. The answer to the first question was almost invariably, "Because we have used it since we were internes, and have found it satisfactory," and to the second, no positive answer could be obtained. Taking up the second question first, the following quotation from a letter by E. R. Squibb & Sons to the writer appears to settle the question conclusively. "When equal volumes of ether and chloroform are mixed at 59 F. (15 C.) the temperature rises to 86 F. (30 C.); when equal weights of ether and chloroform are mixed at 59 F. (15 C.) the temperature rises to 82.4 F. (28 C.). The development of heat when two substances are mixed is generally looked upon as an indication of chemical reaction but the reaction is often more physical than chemical, as for example the heat developed when mixing absolute alcohol and water or mixing strong sulphuric acid and water. No more

chemical reaction takes place when ether and chloroform are mixed than when absolute alcohol and water are mixed, both the chloroform and the ether retain all their properties although of course the action of each has a modifying effect on the action of the other. The liquids do not separate after being thoroughly shaken because they are mutually soluble in each other, in other words it is a case of mechanical mixture. The ether does not evaporate if the two liquids are sufficiently cool when they are mixed. If, however, the liquids had a temperature of say 77 F. (25 C.) and were mixed then, considerable ether might be lost by evaporation, especially if the quantities were rather large." The above certainly shows that we are dealing merely with a loose mechanical mixture, and the writer is not at all satisfied that when a dose of the mixture is placed upon a mask already raised nearly to the body temperature by the patient's respiration, that a considerable portion of the ether does not immediately evaporate, leaving us a chloroform narcosis very slightly modified. In the hospitals when the writer has anæsthetized, the ether cans are stored in closets, either in the sterilizing or instrument rooms, which closets usually have a high temperature; (in view of Squibb's statement in relation to the loss of ether by evaporation at 77 F. we ought to be careful where we store our cans). To pursue this subject a little further, Snow and Hewitt both emphasize the fact that both constituents of the mixture have their special rates of vaporization, the more volatile ingredient tending first to vaporize, leaving the less volatile behind to be respired. The proportions of ether and chloroform in the mixed vapor will be different from those in which the liquids were mixed, and there will be fluctuations in these proportions throughout the administration.

In view of these facts, why use the C-E mixture at all? What excuse have we for subjecting our patients to a vapor which is never of the same density for 5 minutes at a time? The reasons are two; the addition of ether to chloroform has been shown experimentally and in actual practise not only to dilute and prevent too dense a chloroform vapor but also to sustain the heart against the vaso-motor paralysis which chloroform has been shown to produce. The writer does not use the mixture of equal parts as used at Cumberland Street, but employs two parts of chloroform and three parts of ether, after Hewitt's method, thus still further diluting the chloroform vapor. This

is the old A-C-E mixture without the alcohol, which is irritating and tends to produce excitement. The good points of the C-E mixture are lessening of the stage of excitement, little coughing or choking, vomiting in a small percentage of cases (10 per cent.) and a relatively quick recovery. No cumbrous or complicated inhaler is necessary, a plain Esmarch mask being used, which does not embarrass the patient's respiration when it is placed over his face. Deep and exaggerated respirations should be discouraged, since if a patient is told at the outset to breathe deeply he will often do so automatically after consciousness is lost, and cyanosis and embarrassed respiration will result. We must remember that we are here dealing with a chloroform narcosis only slightly removed from the danger point, and anæsthesia must be gradually and not rapidly induced. The practice of wrapping a towel about the mask and shutting off all air is to be condemned. The signs upon which the writer mainly relies are two. The state of the pupils and the color of the face. The man unused to the mixture is almost always led astray by the condition of the pupils, which under moderately deep anæsthesia react vigorously to light. Frequent touching of the cornea to determine its insensibility is useless and criminal. The color of the lips and the rapidity with which the blood comes back when quick pressure is made over the malar bone is the best circulatory index. Some of the conditions which lead to the choice of C-E mixture are as follows: extreme heat or cold preventing vaporization of ether (neither of which affect us in this climate) absence of a proper ether inhaler, patients with much hair about the face, preventing accurate fitting of the face piece, children, nervous, sensitive subjects who find it pleasanter to inhale than ether. In heart lesions the pulse for a time is markedly strengthened and steadied, but after the anæsthetic is withdrawn, or during the course of a prolonged operation, improvement ceases, and the pulse often becomes more feeble and irregular than before. There are very few operations to which C-E narcosis is not applicable, except abdominal surgery, where the writer emphatically believes that straight ether should be used. Gwathmey uses ether for all abdominal work, giving a very few drops of chloroform when a patient shows signs of coming out. Dr. Wm. J. Mayo, in response to the writer's inquiry, says: "We use ether, drop method, almost exclusively in our clinic; we have never used the C-E mixture." The writer sometimes in

nervous hysterical subjects for celiotomy, uses the C-E—mixture changing to ether as soon as narcosis is moderately deep. If ether be given gradually by the drop method with a Ferguson inhaler, the mucous membranes of the respiratory tract are first anæsthetized, reducing coughing and choking to a minimum and eliminating the fear of vaso-motor paralysis and circulatory shock, as far as the anæsthetic is concerned. Surgical shock, produced by manipulation of abdominal organs, must not be confounded with shock produced by improper anæsthesia, though surgical shock is much commoner than anæsthetic shock. Theoretically there is no reason why C-E should not be used in abdominal work, but practically, the writer has seen unpleasant results in a number of cases. A few lines back, the action of C-E in heart disease, at first strengthening, then enfeebling and rendering irregular the pulse, was cited. The same condition may obtain in the respiratory sphere, usually after the operation is finished and the anæsthetic has been stopped. Instead of deeper and stronger respiration, with the occasional deep sigh, the breathing becomes weaker and more shallow, and finally may cease altogether, requiring active measures. The writer recalls a case of ventro-suspension in a stout woman whose heart sounds were normal, where very little anæsthetic was used, who stopped breathing five minutes after the anæsthetic was stopped, and who required artificial respiration for nearly an hour. The fat, flabby, bull-necked patient, lax of ligament and inelastic of muscle should never receive C-E. The tongue and air passages swell rapidly, impeding respiration, the impaired heart does not contract vigorously, we have stasis of blood in the great vessels, respiratory shock because the lungs do not get blood enough. In such a subject, ether is the only admissible anæsthetic.

Before closing this paper, let us remember one or two points regarding anæsthesia in general. First, there is no place in medicine where suggestion is more valuable than here, not so much the spoken reiteration that the patient "will go to sleep," but the way the anæsthetist enters the room, the quiet assured manner, absence of all pomposity and bustle, auscultation of the chest with a quiet assurance to the patient that she will take the anæsthetic well, anointing of the face with a lubricant, covering the eyes with gauze, these are all suggestions. There should be absolute silence in the anæsthetizing room. Let the

relatives weep if they want to, but make them weep on some other floor. Few hospitals have a proper anæsthetizing room, which should open directly into the operating room by a sliding door, without exposing the patient to the draughts of a corridor or fussing with two or more swinging doors; this room should be kept at the same temperature as the operating room.

What is the present status of the anæsthetist? Happily he is slowly assuming a place in the mind of the profession as a specialist, qualified by training, special study and taste for this delicate task, which demands just as delicate and painstaking administration as surgery demands accurate coaptation of tissue. The day when the general practitioner goes to give an anæsthetic with a bottle of chloroform and an unlimited faith in Providence as his equipment, is passing by, as the writer hopes to see the practice of routinism in anæsthesia pass. Who defends routine prescribing of our remedies? We may do it, but we know all the time that we are not doing the best for our patient. Why then, use one anæsthetic slavishly for every case? Even though it may be adapted to nine cases out of ten, the tenth case is the one where the skilled anæsthetist recognizes its unsuitability, and by tactful co-operation with the operator is able to prescribe and administer that form of narcosis which will carry the patient through his ordeal with a minimum of danger, discomfort and anguish of mind.

CONCERNING THE WANSTALL-COPELAND-FORNIAS DISCUSSION.

BY

ELDRIDGE C. PRICE, M. D., BALTIMORE, MD.

IN the *HAHNEMANNIAN MONTHLY* for March, 1908 is quite an interesting discussion of homœopathy by Drs. Wanstall, Copeland, and Fornias. Dr. Wanstall's contention is that homœopathy is not a natural law but "a systematic empiric principle"; while the contention of Dr. Copeland and Dr. Fornias is that homœopathy is a law. From this discussion the reader may glean quite a number of ideas which are of more or less significance, and as the subject is one of such grave importance at the present juncture, it seems to me to be quite in order for any one who feels deeply and who has given the subject much thought not to hesitate to express his views

Much was said by the three gentlemen entering the controversy, but the central point around which all the ideas were clustered, is, whether or not *similia similibus curantur* phrases a natural law, or simply a rule of practice.

In discussing almost all subjects of vital importance the tendency is either to too much optimism or too much pessimism; the disputants incline to too great credulity or too great incredulity; few minds being so constructed as to carefully weigh all facts concerned and to give these facts their proper valuation and relationships to all other allied facts.

It seems to me it is not a very difficult matter to decide whether or not the word "homœopathy" phrases a law. In the first place it is necessary to take into consideration the fact that nothing occurs by chance; every occurrence is the effect of a definite cause, and the definition which explains the relationship existing between the given cause and effect is a law.

That the same cause shall always be followed by the same effect it is necessary that the same environment and the same conditions always exist. Such relationships may, therefore, always be regarded as laws, and only such relationships. It may, therefore, be seen that it is not always an easy matter to demonstrate laws that have to do with such factors as drugs

and the human organism. As Albert Haller told us many years ago, if we wish to know what drugs will do in sickness we must test them upon the healthy human being, and if we wish to establish the fact beyond a possibility of dispute by hypercritical minds, it is necessary that we have correct knowledge of what drugs have done and will do to the healthy human organism before applying them to relieve the sick. As we all know, we have comparatively little knowledge of drug pathogenesis, and it is therefore most difficult to apply drugs which we are positively certain have produced known effects in the healthy human being. Add to this the factors of temperament, degree of vitality, age, sex, disturbing influences of various kinds surrounding the given patient, atmospheric conditions, etc., and it becomes obvious that the demonstration of any kind of a therapeutic law, or principle, or rule, is most difficult.

The difficulty of proving the existence of a law, however, should not be regarded as evidence that such a law does not exist; for a law may exist which is most difficult of demonstration and yet be a law. Grimm's Law may be cited in illustration. He who undertakes to demonstrate this law must be fa-

miliar with Sanskrit, Greek, Latin, Celtic, Slavonic, Lithuanian, and Old High German, at least. This law of the permutation of consonants, therefore, can only be demonstrated by a philologist, and he who has less than the required knowledge would indeed find great difficulty in either understanding or demonstrating the law. In the matter of homœopathy it is but natural to conclude that the arbitrator should take into consideration and weigh carefully all the factors in the problem, before coming to a final conclusion.

It is a fact that every prescription made by one who thinks he believes in homœopathy is not a homœopathic prescription, nor is every prescription made by one who thinks he does not believe in homœopathy a non-homœopathic prescription. Unfortunately this whole subject of therapeutic philosophy needs systematizing. Few men are in a position to intelligently sustain any claim to any principle upon which any drug is prescribed.

The respective claims that there is but one law of cure, that there is more than one law of cure, that there are no laws of cure, and that the best we can do is to endeavor to follow some general method or rule, have not any one of them been proved to the satisfaction of the majority of the few thinkers in the medical profession. The reason for this is, that the endeavor has been to place the relationship of drugs to the human organism upon a mathematical plane; the variability of all the factors in the problem not having been considered sufficiently.

In the case of homœopathy there are, however, some individual illustrations which are, to say the least, suggestive, one of which is the relationship between cantharides and the urinary tract, another is the relationship between belladonna and the pharyngeal mucous membrane, and another is the relationship between the skin and *apis mellifica*. The haphazard use of these agents will not, of course, demonstrate the law; but the careful consideration of all factors in the problem will bring its reward in the demonstration sought.

It is sometimes assumed that proof of the truth of the law should be found in the practice of the believers; but in the attempt to apply homœopathy there are so many mis-interpretations that we cannot justly regard the average practice of the average believer in homœopathy as a correct definition of the law.

At this point it is proper to consider the meaning of a natural

law, and an examination into the definitions given by such lexicographers past and present, as Richardson, Johnson, Webster, Thomas, Foster, Dorland, and Funk & Wagnalls inclines us to adopt the explanation given by the last named authorities, which is as follows: "The uniform occurrence of natural phenomena in the same way or order under the same conditions, so far as human knowledge goes; a formal statement of such uniformity in any given class of cases; also, the assumed cause of such uniformity; a rule of the universe, called also a law of nature." In this definition we find not only the uniform cause taken into consideration, but also the conditions under which the cause must operate—to which attention has already been called—and the authors go further in permitting the acceptance of an assumed cause of uniformity in the occurrence of events as being a law. In fact, they consider a mere rule which governs natural occurrences as translatable into the law idea. When the attention of all practitioners of homœopathy is called to the foregoing definition, in connection with the reference made to cantharides, belladonna, and apis, I think they will admit that homœopathy is a law of nature; and I think they must further admit that when the alleged homœopathic prescription fails it is not because there is not a law of similars, but because some of the conditions are unknown to the prescriber. The defect is in the man and not in the law.

Another point to which attention should be called, is, that homœopathy is only applicable within its sphere of action, and that this sphere is within the realm of curable diseases. Doubtless the field of curable diseases is debatable but it is not necessary to go into its discussion at this point. Outside of this field, the believer in homœopathy—whether as a natural law, or as a tentative rule—may legitimately resort to other measures. The great law of hygiene, antipathy—which also extends its sphere within the field of therapeutics—may be applied, the allopathic method may also be used, electro-therapeutics and all other agencies that are qualified to relieve suffering, even though temporarily, should not be overlooked by the honest believer in homœopathy. For it must be remembered, whether in the field of philosophy or active practice, that the physician should endeavor to cure his patient, and not practice for the sole purpose of proving a theory. While it should be the endeavor of all thinking physicians to understand as much as possible about the philosophical status of homœopathy, yet an explana-

tion of the law of cure upon which a cure is based should generally come after the cure, not before it; though scientific prevision is a desideratum for which all earnest men should strive.

While it is a fact that many non-homœopathic thinkers agree in corroborating some of the facts which have been known to the homœopathic thinker for many years, yet it is not necessary to call as a cloud of witnesses—as has been done—the most renowned philosophers, savants, and practitioners of the world in corroboration of views on a point that requires nothing more than thoughtful consideration. These gentlemen can prove nothing either for or against the facts of nature.

In Dr. Wanstall's paper which forms the foundation of the discussion in question, there are a number of points to which I would call attention, which do not seem to have appealed to either Dr. Copeland or Dr. Fornias.

First.—On page 167 Dr. Wanstall says: "The failure of homœopathy to maintain its native purity is not due to a decline of the enthusiasm of its teachers as is being so urgently insisted but because the intellectual progress of the day has outgrown the limitations of a dogma which cannot be reconciled with its own practice, nor with the normal growth of rational medicine." The reason why homœopathy has not maintained its "native purity," as Dr. Wanstall calls it, is not because intellectual progress has outgrown "the limitations of a dogma," but because of the fact that therapeutic practice has not been systematized in accordance with the facts of this intellectual progress.

Second.—Dr. Wanstall says: "A *materia medica* cannot be both symptomatic and pathologic." I cannot understand why not. Definite symptomatology points to underlying pathology, and furthermore, though we take Hahnemann, the most vigorous of all advocates of detailed symptomatology, as our guide, there is nothing in his writings to lead us to ignore pathology. He distinctly says that disease is constituted of "deviations from the former sound state of health, which are felt by the patient himself, remarked by the individuals around him, and *observed by the physician*." This last observation by the physician covering the use of all diagnostic means within the knowledge and ability of the physician by which positive pathological changes may be discovered. It is true that Hahnemann does severely criticise the evasion of symptomatology and the magnifying of the importance of assumed pathologica

conditions, which characterized the diagnostic methods of his day, but nowhere in his writings does he condemn the acquisition of demonstrable knowledge of the condition of the patient including *both* symptomatology and pathology.

Third.—Dr. Wanstall suggests that if we work out a scientific homœopathy then it will not be the homœopathy of Hahnemann. Without disputing this point it may be asked why we should not develop a scientific homœopathy even though not the homœopathy of Hahnemann? Hahnemann was more than abreast of his own times, but no thinker can expect him to lead the van of progress of a century later. Since his day science and art have advanced immeasurably.

It is true that this whole question of therapeutic methods is confused in the minds of most medical men, but it is also true that the subject is one which cannot be understood without the expenditure of considerable gray matter. The medical profession is supposed to be a learned profession, and therefore the men constituting this great body should be qualified to think out problems in the field of their daily work.

As one gains practical knowledge from experience and observation he must ultimately come to some definite conclusion relative to the particular line of work which absorbs the greater part of his life; therefore, every medical practitioner who thinks should in due time gather together some ideas which have value to him and which he should regard as practical, demonstrable facts. In my humble opinion the following six points may be regarded as practical, demonstrable facts upon which the thoughtful physician may base his system of therapeutic philosophy:

First.—Homœopathy is a natural law of cure.

Second.—Antipathy is a natural law of cure.

Third.—Homœopathy is applicable in all curable diseases, whether they be acute or chronic.

Fourth.—Antipathy, the law of dissimilars, is applicable in self limited diseases, and in incurable cases in need of palliation.

Fifth.—Allopathy is a method that may be used in incurable cases and in curable cases as an adjuvant to the law of similars.

Sixth.—It is the duty of the physician to familiarize himself with the foregoing facts, and to utilize them for the best good of his patient.

A VINDICATION.

BY

DR. E. FORNIAS.

IT is with no wish to engage Dr. Wanstall in a doctrinal controversy that I ask leave to make some observations on his remarks, which were published in the *HAHNEMANNIAN MONTHLY* for March last; and certainly, his sincerity in establishing his attitude towards Homœopathy and in giving us his reasons for emancipating himself from the *Alma Mater*, make further contention unnecessary; contention which has already created bad blood and led to personalities, which I regret.

If I understand Dr. Wanstall right, he accepts *Similitudo* unreservedly, true enough, not as a *law of nature*, but as a *doctrine*, hence, an apology in this direction seems needless, and yet, when we consider that the *single remedy* and the *small dose* emanate essentially from the very *law of similars*, I do not see how, even with subterfuges or sophistical excuses, one can separate them. They must stand or fall together, for a *similar* to be efficacious must be given as proved (*alone*), and in a dose *below the scale of disturbing action in the health*. Employing a *similar* in combination, even in *alternation with another similar*, is erroneous, for both could not have exact the same influence on the organism, neither the same mode of operation, and if administered in any dose above the line of disturbing action, it would inevitably increase the symptoms for which it was given. This is incontrovertible, and conforms to the laws of thought. *Pure experimentation, the single remedy and the minimum dose* then form the tripod upon which *Similitudo* must rest. Without this synthesis the whole superstructure of *Homœopathy* must fall and crumble.

I cannot accept Dr. Wanstall's dictum that the experiments made by the eminent men mentioned in my first reply, with infinitesimal quantities of drugs, have absolutely nothing to do with the efficacy of our *high-dilutions*. The successful researches of Vannier and Jousset of Paris, and Nebel of Germany, were precisely made to ascertain, both the drug-presence and drug-power in these attenuations. In this respect, I also insist, that the experiments of Von Nagali, Oswald, Rittgen, Valli, Vant Hoff, Lamatte, etc., although of inimical origin

are all confirmatory of *developed drug-power by extreme* subdivisions and dissociations, and that we have a right to take advantage of them to explain matters so intimately connected with *dynamization* and the *power of infinitesimals*. Development of latent energy, unexplainable chemical reactions, and atomic dissociations, are at present engaging the mind of trained observers, and to them we must turn attentively for valuable information, for while we are sleepy, indolent, and contending with each other about things we seem not to understand, our opponents are ripening and claiming priority on subjects we were the first to initiate, but which we have neglected and forgotten.

As an illustration of our neglect, I can conveniently mention the interesting experiments of Prof. Calmatte of France, with the *venom of serpents* and *antivenenous serotherapy*, and who, in the publications about his work, voluntarily or uninformed, completely ignores the earlier labors and painstaking provings of Dr. Constantine Hering, who was the first to employ the attenuated virus of a snake in the treatment of disease. This is certainly an age of surprises, and the impossible seems to exist no more.

My knowledge of languages, though incomplete, has placed me in position to improve and extend my knowledge of all class of phenomena, to rate cause and effect, to compare the known with the unknown, the similar and dissimilar, to contrast foreign opinion, and to estimate at their correct value established facts, but I have never put this knowledge on exhibition for the sake of bragging. Indeed, I have been too busy a man all my life to think of a little thing like that. In the necessity of reaching broader fields of inquiry and touching the palpitating questions of the day, I may have pondered too much with French and German thought, but I should be forgiven for desiring to utilize means that bring nations and people into closer relations every day. Means that facilitate the interchange of ideas so well, better constantly our chances for higher aspirations and exalt our liberality in all channels of human endeavor.

I did prefer to chiefly quote allopathic authorities in my reply to Dr. Wanstall, in order to show the changes of opinion in our favor, and the support given to *similia and infinitesimal doses* by men, who in not very remote time did consider them but heresies. And do not the recognition and approval of such

high intellects as Behring, Lombroso and Huchard mean any thing to us! The first, intrenching himself in *Isopathy* in order to accept more pleasantly the infinitesimals and be less in contrast with our teachings; the second frankly stating that he understands why, a century ago, *homœopathy* was ridiculed, but to-day, what has the old school of any value that is not based on the homœopathic laws? and the third, as can be seen in the *North American Journal of Homœopathy* of the current April, *acknowledging similia and our small doses*, but shielding himself with the cloaks of Hippocrates and Galen to rob Hahnemann of the credit due him. The bounds these gentlemen have given, for reasons easily explained, have brought them nearly to our lines, with their "*meum et tuum*," of course, but in an enough frank manner to show the estimation in which they hold to-day their past assumptions.

I could have, however, following the example of our esteemed Dr. Copeland, quoted one of our men, say, Carroll Dunham; or hundred others, brilliant and honest homœopaths, both dead and living, American and foreigner, who have expended and do spend their life, in maintaining intact our precepts, in combating error and misstatements, and in protecting our school against bastard influences. Men to whom we are indebted of our professional standing, who labored assiduously to prepare the road for us, and who were influential in building up our first colleges and hospitals, and in establishing the "*Alma Mater*" on solid bases. And why should there now be any misunderstanding, any complaining, after such marvelous progress, after such steady success—*positive success*—for, otherwise, how could we have gained confidence in our system, made so many converts, and grow higher and higher in the respect of all classes and in the esteem of our followers.

Of course, for some reason or other, times are more tolerant all over the world. In medicine as in religion a man is allowed wider latitude of belief and conduct. Doctrinal strictness and sectarian narrowness have largely declined, but unbelief has made also its strides. The themes that now seem to interest the medical profession are co-operation, increased efficiency and a closer relation between the schools. Great "*desiderata*," if we only could do away with the bigot and the dunce, and all admit, that, either we have been teaching and practicing *suggestion* with universal good results, or else there is not the least doubt that our small doses reach the organic cell, exert their

developed energy upon the tissues or organs of the body, and bring about *nutritive equilibrium* which is the base of life.

And, now, I close this appeal with the following questions:

1. To whom are we indebted for the position and respect we are enjoying to-day as a school of medicine? To Hahnemann or to his detractors?

2. Where would Homœopathy stand now, if the early followers of Hahnemann had not been loyal enough to encourage, protect, and maintain pure and untarnished his teachings and precepts?

3. Would it be reasonable and desirable to ignore at this our hour of prosperity the examples of Hering, Raue, Guernsey, Dunham, Lippe, Farrington, H. C. Allen, Cowperthwaite, Copeland, Betts, Mohr, Nash, Boericke, and many other successful champions of our cause? And in exchange for what?

4. Of what earthly use would our colleges and hospitals be to us if we could not get in them the knowledge and instruction we expect and pay for, and principally if the opinions of our enemies would take root and prevail among those instructed with the teaching and protection of Homœopathy?

5. Are we to allow disloyal men to invade our centres of instruction and take up the reins that are to lead future homœopathic physicians to temptation and failure?

6. And how about our obligations to those who trustfully and devotedly stand by us, employ us, and pay us for services we are supposed to render according to principle and according to their wishes?

AVOID ROUTINE PRESCRIBING.—It seems to me that the tendency of the physicians of to-day, in the use of drugs, is to generalize. They are looking for a specific for each disease. One physician told me that he always gave baptisia in typhoid. There can be no doubt that baptisia is a grand remedy in some cases. The same is true of gel., rhus tox., bry., etc. If we would render the best service to our patient, we must learn to individualize. We must know when to give baptisia. Routine treatment has no place in homœopathy. There are a large number of physicians who have tired of using our remedies in the same old way year after year. They want a system of medicine that is progressive, that changes from year to year and from decade to decade. Many are calling for a reproof of our drugs. This is proper, but had we not better hold fast to what we have until we get something better? While we are looking forward, had we not better look backward, also? We need to be reminded of the wonderful weapons we now possess for combating disease.—Frank W. Somers, M. D., in *Medical and Surgical Reporter*.

MODERN THOUGHTS ON ECZEMA; ITS MANIFESTATIONS, DIAGNOSTIC AND TREATMENT METHODS.

BY

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Mr. President, Members and Guests of this Society:

It is my pleasure at this time to greet you with a paper on eczema, which paper I have titled "Modern Thoughts on Eczema; Its Manifestations, Diagnostics, and Treatment Methods." I have chosen the subject of eczema, because it is ever with us, comprising at least one-third of the dermatologic affections, both in private and dispensary practice. A disease with which we all have had to deal, and which no doubt has many times given us much care and thought. As a most practical subject for discussion, as one upon which much has been written and said, and as one upon which there exist so many controversial opinions, I therefore present eczema to you.

I shall begin with a general consideration of eczema, giving a definition for the same, as clinical experience has made me see it. I shall have a few words to say with reference to the general causation factors, internal, external, and the so-called parasitic theory. Metastasis in eczema, eczema, as a cause of death; the so-called seborrhœic and impetiginous eczemas; and eczematization; shall all be briefly considered.

I shall conclude with the various manifestations of eczema, its deviations, and associated secondary conditions; its differential diagnosis; its topical treatment, and last but by no means least, but best, the indicated homœopathic remedy.

One can necessarily see that a paper of the scope I have outlined, must certainly be brief, and such shall be my aim.

Let me begin then by asking, "What is eczema?" No doubt you will permit me to answer,—then I shall answer: "Eczema is a dermatitis, without definite entity, being the result of some existing morbid condition, whether due to internal or external causes." Now is eczema a dermatitis? such is the question

Many authorities contend that it is not dermatitis, but that it is similar to it; while anatomically and pathologically they are the same. By dermatitis I refer to such conditions as those set up by chemical and mechanical means. Hebra contends that eczema is the same as any dermatitis caused by any external irritant, and certainly in their progression, from erythema to pustulation, they are the same, and certainly not distinguishable. We must admit, then, that eczema and dermatitis are one and the same thing, and that therefore, eczema is dermatitis, whether due to internal or external causes.

Dearborn contends that "the differences between a dermatitis caused by an external irritant and an eczema excited by the same irritant, rest wholly in the existence of predisposition in the latter disease and an absence of that predisposition in the former" yet we must constantly bear in mind that anatomically and pathologically the lesions are the same, and that they progress from one stage to another paripassu, and again I say, "Are they not one and the same thing?" Stelwagon states that inflammation of the skin of artificial origin is often similar in symptomatology to that of eczema, and may be considered identical, while Gramm contends, clinically dermatitis and eczema differ, while pathologically and anatomically they are the same. He further contends that in eczema, no matter how light the attack, there is more or less thickening, which is wanting in dermatitis. So that we can readily see that opinions are many and varied, and we can as readily see that dermatitis and eczema are possibly one and the same thing. Yet, while we may consider eczema as dermatitis, there are certain definite varieties of dermatitis which are not usually considered as eczemas, recalling the fact, that I previously stated that eczema belonged to that class of dermatitis, which was without definite entity. While such dermatoses as ivy poisoning, seborrhœic dermatitis, etc., are of definite form, and are therefore not classified as eczema; it being recalled that seborrhœic dermatitis was at one time classed as seborrhœic eczema, until its definite entity was established, of which at this time there is probably little doubt, and of which I shall have more to say.

Permit me now, if you will, to make a few general remarks concerning eczema; that it may present itself on any part of the body we well know, the flexure surfaces, and where the skin is less protected however are more vulnerable to attacks; rarely is general eczema of the entire body to be seen; if it does exist,

it is usually in the aged and debilitated. The duration of eczema is variable, it might last but a very short time, and then again it may persist for years, absolutely refusing to respond to any sort of treatment. Like acne, at one time it is better, and then again worse, the periodic conditions in women seem to have a distressing influence upon it. To consider eczema acute, sub-acute or chronic, is indeed hard to do; cases will persistently remain acute or sub-acute for a year or more, so that it is hardly possible to specify eczemas with such terms.

Eczema is decidedly a multiform disease, being seen in all stages of progression, one time erythematous, then again vesicular, going on to crusting, and then again the same case can be seen in all of these manifestations. Certain it is, that eczema cannot possibly be cured until the causation factors are removed. To find these factors often takes careful study of the case, and close attention to the minutest details, so that the properly indicated homœopathic remedy might be prescribed. I must again here reiterate that time and time again have cases of eczema, and in fact many of the other skin diseases, readily responded to homœopathic treatment, where no topical treatment was at all attempted. Not that topical treatment is not essential, because I believe that in most of our cases it is, and it behooves us to give patients relief, and that immediately. For what is more distressing than the terrible, itching, burning, or biting which is so characteristic a symptom of eczema.

Perhaps here it would be wise to ask the question: "Is there not danger of driving the eruption in, or healing it too quickly, by topical treatment?" Most certainly not. Yet Feer, in the *Correspondenzblatt für Schweizer Aerzte*, reports eight cases in which children died after the cure of eczema, and further reports twenty-two such cases in literature. Butte, in the *Ann. de Ther. derm. et Syph.*, reports two fatal cases of death following eczema. De Amato, in the *Mon. f. prakt. Derm.*, agrees with the two foregoing authorities, contending that there is a reciprocal relationship between the toxic elimination through the skin and the internal organs. It is worthy to note that in some cases reported, the cause of death was pleurisy and bronch pneumonia, asthma, gout, rheumatism, etc., and on several no demonstrable cause of death. I think it is perfectly safe to state that these authorities, no doubt are mistaken in the conclusions which they have drawn, for is it not possible that eczema may have been a coincident in these cases, and are there

not people dying every day, in whom no demonstrable cause of death can be found? Let us next take up a consideration of the causal factors which are considered responsible for eczema. I shall first dispose of the so-called parasitic theory, which was upheld for so long a time by Unna, who contended that his morococcus was the microorganism which was responsible for eczema. Sabouraud, however, has definitely demonstrated that



ECZEMA OF THE BEARDED REGION.

A vesiculo-pustular dermatitis of twelve years' duration, extending into the scalp. Is associated with slight crusting, and more or less itching. There is entire absence of thickening or infiltration, the condition remaining quite superficial. Local treatment consisted of salicylated olive oil, ten grains to the ounce, and the internal administration of Sulphur, 6X, one dose at night, with marked improvement. (Author's Case.)

Unna's morococcus rightly belongs to the staphylococcus species and that it is probably the staphylococcus epidermidis albus of Welch. It was only in 1900, at the International Congress of Dermatology, held in Paris, that Unna withdrew his contentions regarding the morococcus, and only after heated

discussions on the etiology of eczema were held. MacLeod, in the *Practitioner*, in July, 1906, states that every evidence is against the theory that eczema is due to a specific micro-organism, and accepts the theory that eczema is due to a toxine; he divides eczemas into two classes, those caused by external irritants, such as those produced by plants, occupation, chemicals, etc., and those of internal origin, due to toxines in the blood originating in the digestive tract, and which are the same toxines, presumed to be held responsible for the erythemas.

Is eczema hereditary? I think not, but there certainly are existing conditions in certain individuals which predispose to eczema, and which have been handed down from one generation to another. Eczema is most frequently seen in infants, and those past middle life, among the poorer people and those occupied in the trades and who do manual work. Eczema occurs more readily in those who are light complected and have fair tender skins, than in those who are dark complected and whose skins are more or less resistant. Certain it is, that those who have the predisposition, are more liable to attacks, than those who do not.

Among the internal causes of this disease, might be mentioned, those conditions which are responsible for the errors of metabolism, auto-intestinal intoxication, and nervous influences.

Vaso-motor disturbances no doubt are responsible for this protean disease, being caused directly or indirectly, by either the internal causes as mentioned, or external causes.

No doubt, it is possible that these very internal toxines and ptomaines are likewise responsible for such conditions as erythema-multiforme, and many other of the erythemas.

Disturbances of digestion, inactivity of the digestive tract, with its consequent constipation, and intestinal fermentation, the gouty and rheumatic diathesis, nephritis, asthma, and reflex nervous influences are all held responsible for outbreaks of eczema.

As a predisposing factor in infants, Raue contends that overfeeding is a very frequent cause of eczema, especially when infants are allowed to take their milk too quickly, and at too frequent intervals.

Among the external causes which produce eczema, and the one which in many cases is most responsible, is the too free use of soaps and water, which readily remove the skin fats and

the superficial epidermis as well. Especially are such conditions to be seen in washer-women, bartenders, and the like. Among the other causes are to be mentioned, mechanical, thermal, chemical and actinic agents.

Among the mechanical causes are the eczemas produced by the rubbing of clothing, such as intertrigo, and the friction produced by various parts of the body rubbing together, seen in women with fat, pendulous breasts; between the thighs, etc.



ECZEMA OF THE SCALP.

Showing associated alopecia, following a dermatitis resulting from pediculosis. Of six months' duration, markedly pustular, in nature, with a gummy, foul-smelling exudate, and characteristic crusting. Rapidly healed on the removal of the causal factor, and the local application of a five per cent. white ppt. ointment, using the ungt. calamine as a base. Staphsagria, 3X was administered, one dose at night. (Author's Case.)

Then again, scratching must be considered as a mechanical means, with the ever-present danger of pus infection from unclean finger nails.

Under the thermal and actinic causes might be mentioned heat and cold, with the production of dermatitis solare (sun-burn) the summer and winter eczemas, to which certain indi-

viduals are especially prone and the eczemas produced by artificial heat, and the X-rays.

Among the chemical causes are to be mentioned, the acids and alkalies, such substances as turpentine, benzine, various drugs, and poison-plants.

We are now ready to discuss the various manifestations of eczema. Was there ever a more protean dermatologic affection? Changing, always changing, one time erythematous, then papular, or vesicular, again pustular or perhaps squamous. Mayhaps one existing condition, or all of them, then again almost well only to again manifest itself in all its eczemic majesty.

After eczema has persisted for some time the tissues undergo thickening with the formation of marked induration, the skin becoming tense and shiny, and is then known as eczema rubrum, the skin being dark red in color, and at times almost purplish.

Frequently when there is hypertrophy of the papillae, warty growths present themselves (eczema verucosum), occasionally the skin, on account of its poor resistance will split and form fissures (eczema fissum) when such fissures penetrate deeply into the skin and become painful, the condition is known as eczema rhagidiforme.

When secondary infection from the pus microorganisms takes place, we have a condition known as eczema impitiginosum; especially so when infection is due to the streptococcus, for according to Sabouraud's contention, the impetiginous form of eczema is due to this specific microorganism, and is not merely a form of eczema similar in its picture to impetigo, as was previously supposed.

There are figured forms of eczema, known as eczema marginatum, forms which simulate the forms of ring worm, or the forms as outlined by previous existing dermatologic disease; why this should be so is not known.

"Eczematisation," or simple cutaneous reaction, is described by Sabouraud, as "the production of local or diffuse serous suffusion, the former forming vesicles, the latter creating more or less superficial exudation. Eczematisation might be abortive medium, or chronic. When abortive there is scarcely any cutaneous reaction; when medium, might be considered as mild eczematous attacks, quite superficial, and rapidly disappearing; while chronic forms are to be distinguished from lichenisation; which is the cutaneous reaction to certain *chronic* irritations.

being lichenoid in character, with a decided thickening of the epidermis, while in eczematization there is more oedema, more redness, less induration, and does not have that typical angular appearance, which is to be seen in lichenisation.

A few words on the so-called seborrhœic eczema, which is not eczema at all, since Sabouraud has clearly demonstrated that it has a definite entity of its own, having demonstrated



ECZEMA OF THE LEG.

A chronic dermatitis, erythematous-squamous in nature, of five years' duration. The scales are plate-like in character, there is marked infiltration and thickening, with a tendency to fissure formation. Had been overtreated with tar. Cured with the local application of Ungt. Calamine, and Petroleum, internally, 6X, one dose at night. (Author's Case.)

that its causal factor is a micro bacillus, likewise known as the bottle bacillus of Unna so that this disease has been separated from the so-called eczemas, and put into the class in which it rightly belongs. I shall merely mention here that sulphur and resorcin are the remedies par-excellence, which are locally indicated in this disease, and which are absolutely antagonistic

to the welfare of the micro-bacilli which are responsible for the disease.

Associated secondary conditions will now concern us for a few moments; perhaps the one condition which will give us the most concern as a secondary manifestation in eczema is pus infection. As long as an eczema remains sterile, that is to say, as long as the serum-like discharge remains free from infection, there is no danger of suppuration. But once the staphylococcus enters, then we have the serum-like discharge changed into one which is either sero-purulent or entirely purulent. The result being that thick, heavy crusts are formed, which in the infant's scalp produces the so-called milk crust of the older writers. When, however, the streptococcus is allowed to enter then we have a secondary condition of impetigo, engrafted upon the eczema, as previously mentioned. In the pustular cases of eczema, glandular involvement is at times to be seen; infection of the hair follicles, from constant scratching, with the formation of boils, occasionally happens. Constitutional symptoms, as a rule, are wanting in eczema; occasionally slight febrile reaction might happen in the beginning of acute eczemas. Constitutional symptoms are, of course, to be expected in those cases of internal disease, in which the eczema is but a secondary manifestation.

The question of diagnosis would next naturally interest us, for there are a few conditions which might be more or less confusing and which might deter us from coming to correct conclusions. In order to obviate just such possibilities, I shall go over the differentiating points, in those conditions, which will be of interest to us, and which will assist us in coming to correct conclusions regarding the diagnosis of eczema.

To begin with, let us always bear in mind, that eczema usually presents itself at least in one-third of the cases which come to us for treatment, not that this fact should lead us to believe that every case is eczema, but it is a fact worth bearing in mind, together with the facts that any dermatologic affection, which has profuse weeping, intense itching, crusting, a tendency toward thickening and infiltration, possible fissuring, the serum-like discharge, which has a tendency to stiffen linen, the patient's predisposition, and the fact that there is tendency toward confluency and chronicity. All of these facts taken into consideration should lead us to believe that we had a case of eczema to deal with. Yet I readily appreciate that there are certain cases

which will give us more or less trouble in reaching a diagnosis, so that I shall now give the differentiating points from a few of the more common dermatologic affections, including psoriasis, seborrhœic dermatitis, scabies, erysipelas, ring worm, and the syphilodermata.

Psoriasis.—The lesions in psoriasis are of various sizes, usually rounded and definitely outlined; in eczema the lesions are usually irregular in outline, and are not definite, gradually merging into the healthy skin. The scales in psoriasis are usually heavy, pearly white, and on removal show hæmorrhagic points; while in eczema, the scales are slight, on removal there is an inflammatory base with serum-like oozing, and the scales or crusts are yellowish or greenish. Psoriasis has a predilection for the extensor surfaces, while eczema prefers the flexure surfaces. Psoriasis is always a dry condition, while eczema gives a history of weeping or oozing. Psoriasis is usually without itching, yet there are cases which do itch, yet not in comparison to the intense itching of eczema. Psoriasis of the scalp shows itself as a dry crusted condition, through which the hairs penetrate, while in eczema there is more or less moisture, and the hairs are matted down beneath the crusting. Occasionally the psoriasis lesions extend beyond the scalp border, on to the forehead and are usually festooned and sharply defined, while eczema is ill defined and not made up of several smaller rounded patches, which gives the festoon appearance to psoriasis.

Seborrhœic Dermatitis.—In this disease the scales are oily or greasy, on removal there is an oozing of oil, and they are fine and ill defined; while in eczema the scales or crusts are dry and brittle and on removal show an effusion of serum, the scales are thicker and heavier. Seborrhœic dermatitis is without infiltration and thickening, is not highly inflammatory, and shows the presence of the micro-bacillus of Sabouraud; while eczema decidedly shows thickening, is highly inflammatory, and is without definite entity failing to show any specific microorganism. Seborrhœic dermatitis likes to limit itself to the chest and back, on the scalp, about the arm pits, while eczema is a liberal wanderer.

Scabies.—The lesions in scabies are usually definitely localized, to be seen upon the usual sites of predilection, while eczematous lesions are more or less limited. Scabies lesions are especially diagnostic when seen upon the penis in the male and upon the breasts in the female; attacks of eczema do not have

this concomitant factor, of definite scabies papules, as mentioned. Scabies shows the burrows, especially to be seen in the flexures of the wrists and elbows, while the microscope will demonstrate the acarus, to be found at the end of the burrow, while eczema shows neither of these. Yet it is to be remembered that eczema usually coexists with scabies as a secondary condition. Scabies usually gives a history of existence among other members of the same family, and the history of itching being worse at night, while in eczema such a history is wanting, the itching is not essentially worse at night.

Erysipelas.—Beginning at a point, erysipelas spreads itself peripherally, with a well defined border; the inflammation is deeper seated, involving the sub-cutaneous tissues as well. The sensations in this disease are rather those of fullness and burning than itching, as in eczema. The character of the discharging fluid is quite different from that of eczema, which is quite sticky, while that of erysipelas is more watery. Erysipelas has decided constitutional symptoms, with a tendency to bleb formation, which is not usually the case in eczema, except perhaps, in the beginning of an acute attack of eczema, and then the febrile symptoms are slight and vanish quickly.

Trychophyton Infection.—The ring worms of the scalp might occasionally be mistaken for eczema, yet if we will recall that the ring worm has the characteristic goose flesh appearance, from enlarged papillæ, that there are to be seen broken off stumps of hair, and that if there are scales present, they are not those which are characteristic of eczema, as previously mentioned.

Ring worm of the body usually begins as a papule, which spreads peripherally, clearing in the centre as it goes, having a definite border of vesicles about its outer margin. Occasionally there will be fine furfuraceous scaling in the central regions of the lesion, these conditions are not to be seen in eczema. Occasionally trychophyton infection takes place about the crural region, or in the axilla; and has been known as eczema marginatum, on account of its marginate outline. It cannot be mistaken for eczema if we will recall that the outline is definite, the centres are usually clear, there is less itching than in eczema, there are usually several characteristic ring-like lesions, close by or beyond, and then again the microscope will be an aid. Sycosis of the bearded region is to be differentiated from eczema, by the

fact that sycosis is a follicular condition, usually limited to the region affected, there is not that characteristic gummy exudate, as seen in eczema. Itching is usually slight or wanting in sycosis, while in eczema it is often intolerable. Sycosis has a tendency to go deep down, becoming lumpy and tumor-like, whereas eczema does not have the tendency to go to any such depth as sycosis, being quite superficial in comparison.

Syphilodermata.—Lastly I shall give a few diagnostic points from one cutaneous manifestation of syphilis. Perhaps the one condition which will annoy us most, is a differential diagnosis, between squamous eczema of the palms, and palmer syphiloderm of the same type. Indeed diagnosis is often hard to make, and very frequently not at all possible being guided only by the results of treatment. If we will try to recall that fissuring is usually not seen in palmer syphilide, while in eczema it is occasionally the rule; that in syphilis the condition is at times seen in but one palm, while in eczema, it usually is to be seen in both; that in eczema the fingers are usually involved, while in syphilis, not; that palmer syphilide is occasionally seen with similar condition of the soles, while such double manifestation is rare in eczema; that if there is an entire absence of itching, it is possibly specific, for it is well known that palmer eczemas only at times itch slightly; if we will remember all of these things we might possibly differentiate in difficult cases, and then perhaps not at all. So much then for diagnosis.

In conclusion we are now ready to take up the question of treatment, and as I have considered eczema, a dermatitis pure and simple, treatment necessarily resolves itself into the treatment of skin inflammations, whether they be acute, sub-acute or chronic. Of course I refer to the class of simple inflammations; those non micro-organic in character or questionably so. Therefore in outlining the treatment for eczema, I must as well necessarily give the routine of treatment for the entire class of simple inflammatory dermatoses.

I shall divide the treatment into internal and external; the external being divided into acute and chronic, the sub-acute being of little importance, for the fact that it is quite hard to tell where the line should be drawn, in differentiating the one from the other, especially in eczæmic dermatitis. I shall therefore consider all conditions as acute, up until a definite line of chronicity can be established.

In beginning the consideration of treatment, the first ra-

tional thing to do would, of course, be the removal of the causation factor. If the discernable cause be an external factor, then its removal might cause but little trouble. If however, the disturbance seems to be from within, then very, very frequently it takes a long and careful, I might almost say, critical study of the case in hand to find the fault.

And just at this point it behooves me to say that this is just the place where the properly indicated homœopathic remedy does so much in bringing about a cure; regardless of the fact whether the true internal cause has ever been located or not, which is the rule in the greater majority of the cases, even after the most careful study of the bodily excretions, the gastric contents, the bodily fluids, and the lesions themselves.

Let the regulation of the diet be of paramount importance in the treatment of these cases, regardless of the fact whether the cause be external or internal. For the fact that in those who are predisposed, a careful regulation of the diet and hygiene very frequently does much to make the patient less susceptible. The sweet starchy foods, and those which cause intestinal fermentation should be eliminated. Meat and egg diet should be tolerated but once a day. Fresh fruit and vegetable diet should be encouraged. The cereals, with possibly the exception of oats, are acceptable. The patient should be made to drink plenty of water, except in the aged and those afflicted with heart disease, for fear of over-distending the heart and blood vessels. The drinking of water, most certainly acting as a constant flusher, thus stimulating the kidneys to healthy activity, and thereby diluting and getting rid of much of the bodily toxins and ptomains. Walking is one of the most ideal forms of exercise, for dermatologic affections, not strolling, but good brisk walking, at least five miles a day. Both water drinking and walking is more than obnoxious to some patients, but kind and gentle persuasion will often convince a patient of the good to be obtained thereby. It is my custom and routine both in my private and dispensary practice, to have my patients drink a cup of hot water before retiring and on arising in the morning, and then a half glass full of pure, cool water every hour, beginning at least an hour after meals and continuing until an hour before meals. Constipation, which is usually present, must be actively combated. Having the patient lie flat on the back, with the abdominal muscles flaccid, and having them knead the tract of the lower bowel, on retiring and arising.

frequently does much good in overcoming the constipation. Certain it is, that water-drinking helps considerable.

The excessive use of tea, coffee, alcohol and tobacco are often responsible for outbreaks of eczæmic dermatitis and should be interdicted. Occasionally a fluid diet is recommended for a few days in the acute attacks, milk being recommended as the ideal. I cannot possibly see how milk can be considered as a fluid diet, for we are all well aware what happens to the milk as soon as it strikes the acid medium of the stomach; the bowel movement often bearing mute testimony to the solidity of the curdled mass.

Occasionally one will run across a case of dermatitis of the eczæmic form, in which the patient has been a veritable crank upon the question of diet, practically stinting himself, of the very essentials. In these cases I have found it of more than great benefit to turn the patient's routine of life almost upside down, compelling him to eat, *ad libitum*; ignoring nothing which he may desire, with the result that healing has often been successful.

We are now ready to consider topical treatment, and the understanding of this is the understanding of the treatment of all of the acute dermatoses, and as well the key to the understanding of topical treatment in general.

The first and most important symptom to relieve, and of which the patient complains most, is the intolerable itching. This is usually in the vesicular form, or perhaps in the erythematous form, rarely does the pustular or squamous form itch as much as the vesicular, although the itching in these latter forms is considerable. Lotions are usually more acceptable in the erythematous and vesicular forms, and I know of no better local application than that known as the Calamine Lotion, containing a drachm each of Pulv. calamine, zinc oxide and glycerine, to four ounces of lime water, with the addition of perhaps one or two per cent. menthol or carbolic acid. How really soothing this lotion is in acute dermatose, its liberal use will easily demonstrate, never failing to soothe any dermatologic inflammation into a state of calm quietude and tranquility. Half of the bulk of calamine lotion is a pink colored precipitate; sufficient of the lotion to be used should be poured out upon a saucer, and should be dabbed upon the affected areas with clean pieces of old linen; cotton should not be used for the reason that it absorbs too much of the precipitate.

When a weeping eczema begins to lessen its oozing, very frequently an ointment will be indicated. A soothing ointment which I suggested before the State Medical Society at its 1 meeting at Pittsburg, in my paper on "Topical Cutaneous Therapy," is made up of a half drachm each of Pulv. calamine, zinc oxide, and boric acid, to the ounce of cold cream. I have called this combination the unguentum calamine, and like the calamine lotion it is indicated in any acute dermatose. It is especially soothing for the fact that it contains at least twenty per cent. of water, which is incorporated in the cold cream and by its evaporation a decided cooling effect is produced. Its soothing effects can be increased by the addition of an anesthetic or pruritic, one or two per cent. When an astringent is indicated bismuth sub galate or sub nitrate may be added, a half to one drachm to the ounce. Ointments in the acute dermatoses should not be rubbed in, instead they should be spread upon several layers of gauze, with oiled paper in between the layers and lightly applied.

Boric ointment, a drachm to the ounce of petrolatum, often does good, and is an excellent soothing unguent.

It is to be remembered that hot water applications often soothe acutely inflamed dermatoses, to be applied with compresses, as hot as can be borne, for at least fifteen minutes, then to be followed with the application of a soothing ointment.

Lassars Paste (Pulv. zinc oxide, one-half drachm; starch, one drachm; petrolatum, one ounce). Salicylic acid may be added, but not more than ten grains, occasionally gives good results, any other substances can be conveniently added to the paste; ichthyol 10 per cent. is of benefit. Water should be avoided in the acute dermatoses, olive oil being resorted to for cleaning purposes, and as well is to be used, for the removal of scales and crusts, in the suppurating and scaly forms. The addition of ten to fifteen grains of salicylic acid hastens the removal of the crusts; and is of especial value in the treatment of eczema dermatitis of the scalp.

Pustular forms of eczema are to be treated with mild antiseptics until the pustular form has disappeared, and then to be treated as previously outlined. The ammoniated mercury, ten grains to the ounce of a soothing ointment, does good; when the impetigo has been engrafted upon it, the ammoniated mercury can be increased to twenty grains to the ounce.

The chronic forms will now concern us; here it is essential to use stimulants, in order to get rid of the results of the inflammatory process, and to stimulate the areas into renewed and healthy activity. Tar seems to be the most useful remedy for this purpose, but I have yet to see but a very few cases in which it was essential to resort to stimulation. The greater majority of cases which come to our hospitals and dispensaries for treatment have been completely tarrorized, in other words overstimulated, and all that it has been necessary to do in these cases was to soothe and quiet them down, with the result that they quickly got well. Too much care cannot be taken in beginning stimulation in the chronic conditions. One must proceed with great caution, beginning with the mildest of stimulation and very gradually increasing. One per cent. is about the strength to begin with; *pix liquida* (wood tar) being about the best of the tars for dermatologic use, being incorporated in ointment bases; or where it is desirable to use a liquid, Bulkley's liquor *pilis alkalinus* may be used in from one to two per cent. (*Pix liquida*, two drachms; caustic potash, one drachm; aqua, one ounce.)

When it is essential to use a stimulant, it should not be constantly applied, as in the acute forms, but should be rubbed in for the length of time, for which it is necessary to produce the required action. Only those hard indurated forms of eczæmic dermatitis which are decidedly chronic, and which have not been hyper stimulated, are to be treated thus, and then again I say, and with much emphasis, "with caution."

I have not taken up the regional treatment of eczæmic dermatitis for the fact that the scope of this paper would not permit; nor have I given a large list of topical remedies, but have limited myself entirely to those remedies which clinical experience has demonstrated to be the best.

Among the indicated homœopathic remedies which are called upon most frequently, are *rhus tox.*, *belladonna*, *pulsatilla*, *hepar*, *graphites*, *sulphur*, *calcara*, *apis* and *mercurius*.

There are, of course, a host of other remedies, each having its own picture, and it is only the more than careful study of the case in hand which will elicit the remedy.

A CASE OF MYELITIS.

BY

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THE following account of a case of myelitis is recorded by the husband of the patient so graphically and well that I give it in his own words.

The case is interesting and remarkable in its course and complete recovery upon two remedies only, viz.: aconite and apis. These were used in the first decimal dilution. The course of the recovery being the exact reverse of its invasion adds much to the interest of the recital.

Mrs. K——. Age 36 years. Height 5 feet 3 inches. Normal weight 112 pounds. Married seven years, no children. Has good family record. General health fair. For ten years has been subject to severe congestive headaches before or during the menstrual periods.

In October last her appetite began to fail, she complained of feeling tired and gradually lost in weight, about seven pounds during the two months following. Had slight touch of "grippe" in December, followed by an attack of bronchitis in January. Weight fell to about one hundred pounds. Seemed to be very weak and listless after recovery and complained daily of "that tired feeling." Slept considerable during the day time. General condition remained unchanged until February 23d, 1908. During the morning of that day she felt a peculiar tingling sensation in her hands, and believing them to be asleep, attributed it to poor circulation and applied cold water, but without any effect. The sensation lasted about five hours and then passed entirely away but returned at bed time.

February 24.—Upon awakening in the morning, after a sound sleep, she found that her hands were still tingling, and both of her feet felt "numb." Hands and feet seemed to be at normal temperature.

February 25.—During the day this tingling (or numb) sensation spread up both legs and over the abdomen as high as the waist line. The sensation around the waist was exactly that of a "tight band." Her clothing, although loose, felt too tight and very heavy to carry. Abdomen when uncovered also

heavy as if it were weighted. It required considerable effort for her to walk, for upon lifting her feet they both "felt as though iron weights were attached to them."

During the next three or four days her condition remained unchanged but at the end of that time the arms grew weak, and the hands and fingers, in addition to tingling became difficult to move, each finger feeling heavy, as though made of iron. She also lost the sense of touch and, for example, could not tell whether a polished wood table was bare or covered with a cloth. In testing further the sense of touch, it was found that by placing on a table a number of small articles (such as buttons) she could not detect their presence by lightly passing her hands over them. But upon pressing the objects they caused her to feel needle-like sensations in the palms and fingers. She also experienced difficulty in holding such articles as a comb or brush. Could not tell when she had them in her hands, and would usually drop them because she did not know when she was exerting enough muscular effort to grasp securely.

About two weeks after the beginning of the trouble, the first sign of improvement was noticed in the right foot which at times felt normal. From that date on the feet and legs gradually improved, and about five weeks from the beginning were both entirely well. In the interim, and about three weeks from the beginning, the same peculiar sensations spread higher on the body, over both breasts and down the arms. Her armpits in particular were sensitive, and she could not endure the pain caused by having them bathed. All around the neck, as high as the chin in front, and the roots of the hair in back was also affected. It felt "raw,"—*i. e.*, the same sensation experienced when the skin has been scraped from the knee or shin.

The "belt" around the waist gradually disappeared between three and four weeks after treatment, and a week or so after its disappearance, the raw sensation around the neck followed suit.

The next improvement was a noticeable gain in general strength, and while the sensations in the hands and forearms continued without change, the arms became stronger and the fingers lost their feeling of weight. She also began to experience less difficulty in holding articles in the hands.

During the time between her recovery from the bronchitis, and lasting for the first three weeks of the present trouble, she had many dreams of "falling from an altitude," and a few of

"dying." These dreams were all in the first hour or two after going to bed. She has had no mental depression whatever. Invariably cheerful and optimistic.

She is left handed, and the left extremities have been slightly worse than the right. With the exception of the private parts, these sensations have been felt in all parts of the body. Bowels normal at all times.

At the time of writing (7 weeks after the first symptoms) she is apparently well with the exception of the hands and forearms, and while they still experience the same sensations, yet they are daily becoming better. Has gained slightly in weight, and eats and sleeps better.

Three years ago she experienced in both feet, similar sensations but in a lesser degree. At that time it was noticeable mostly on going to bed and was felt only during intervals. It lasted all together about ten days, and finally passed away without medical attention. No unpleasant effects followed.

DECAPSULATION OF THE KIDNEYS IN ECLAMPSIA.—Sippel. *Zentralbl. f. Gyn.* 1907—1586. The discussion in regard to the applicability of this operation for the relief of eclampsia, has been going on for some time, and cases have been reported which, however, have indicated rather uncertain results. Sippel has pointed out that the proper time for this operation is after the uterus has been emptied, that is, after the source of the poison of eclampsia is removed. In eclampsia the kidneys are not tense, but soft and flabby. They have the character of oedematous tissue. The same condition exists in the kidneys in other diseases caused by toxic conditions, and is induced by primary injury of the capillary vessels by the poison. The injured capillaries permit the serous fluids to transude into the surrounding tissues. From this follows a back action of compression of the capillaries, and a serious impairment of renal function. On the other hand renal glaucoma arises from relatively sudden injury of the kidneys from obstruction of the veins and excretory ducts, which permits a rapid disturbance of excretion and thus the poison accumulates to cause disease. The operation acts promptly by diminishing intrarenal pressure. The author believes the operation to be called for, not for eclampsia during pregnancy, but for those cases occurring after the emptying of the uterus.

EDITORIAL

THE BUSINESS ASPECT OF MEDICAL PRACTICE.

A WRITER in one of the popular magazines (*Appleton's Magazine*, April, 1908) discussed the subject of the "Righteousness of Doctor's Fees" in a manner that has attracted considerable attention. Strange to say of a layman, he reaches the conclusion, after gathering data from six thousand physicians scattered over all parts of our country, that physicians, as a class, are very poorly paid and that not one in ten thousand accumulates money in proportion to his ability or to the services he renders.

To the average doctor, who is accustomed to hear nothing but complaints from his patients about the size of his bills such a statement from a layman who has taken the trouble to investigate the subject from all standpoints contains a great deal of encouragement. In few lines of human effort, with the exception of the ministry, does gratitude (?) constitute such a large part of the compensation for the services rendered and yet how frequently do those who have the most reason for being grateful to their medical attendant exhibit the least of it. Public expressions of the indebtedness of the people at large to medical men are particularly rare and the profession is indebted to the author of the article, Mr. George C. Lawrence, for the manner in which he has brought the facts regarding the smallness of doctors' fees before the attention of the public.

One of the interesting facts which the author developed in his correspondence with physicians relates to the cost of obtaining a modern medical education. He found that the average cost of a modern medical education, including the necessary preliminary training, amounted to \$4,429.63. Adding to this the amount of money that the average student could have earned during his years of study had he gone into some commercial pursuit, he places the total cost necessary to obtain the degree of M. D. at \$11,000. After all this expenditure of time and money the young doctor finds himself at the average age of twenty-nine ready to begin his life work and

few indeed are they, as statistics amply show, who when they are called to lay down life's burdens at the age of sixty or sixty-five have been able to save the amount of their original investment. An eminent New York specialist quoted in the article says: "I doubt if there are to-day in this whole city one hundred doctors who could retire and not starve to death in one year. Our expenses increase with our own income, and while the average business man can hope to retire some day, the average medical man retires when he dies."

In investigating the subject of the fees charged by specialists, which the public are accustomed to consider as exorbitant, he finds that the remuneration which they receive for their labors as a whole are not large and as compared with the compensations of men of similar ability and training in commercial pursuits ridiculously small. Take for instance the notable case of Professor Lorenz who received what was considered a remarkably large fee for performing an operation on the child of a multi-millionaire a few years ago. Let us remember that in order to acquire the skill and experience necessary to assure the parents of the child that he was more capable than any other surgeon in the world of performing the operation successfully he had already labored far beyond the age when men engaged in commercial pursuits can retire, that he was compelled to leave his practice for several months, and that while in this country he performed the same services to a large number of the poor and afflicted without any compensation whatever. In fact if we were to divide the fees which he received during his visit to America by the number of operations which he performed in the same period of time we would find that his average fee per operation was very moderate. The same may be said of every surgeon or practitioner of note.

Time does not allow us to take up in further detail the various facts which Mr. Lawrence has collected on the subject of doctors' fees, but it is sufficient to say that a careful consideration of the facts he has presented must compel any reasonable man to conclude that, aside from the ministry, physicians are the poorest paid men in any profession, business or trade when the time and cost of preparation and the character of the services performed are considered. This fact being admitted what then shall we say? Shall the members of the medical profession continue to plod along content with a small pittance, eking out a mere living wage during their years of activity and

spending the declining years of their life in want or dependent upon the charity of others, or perhaps, if they die before they are incapacitated by age, leaving their wife and family without any more substantial assets than the good wishes of a few faithful patients and a large number of uncollectible bills? Or shall this body of intelligent and trained men inspired by the innate justice of their cause and by the needs of their wives and their families insist that they shall receive adequate compensation for their time and skill? Our sense of duty and of justice demands that we should. Not that we should refuse to aid the poor and afflicted under all circumstances and at all times without thought of what our financial returns may be, but that we should insist that the large proportion of people who live in ease and comfort should pay for medical attention on the same scale that they pay for other skilled or professional work.

Of course, from a poetic standpoint, it is very grand to be told that we belong to a noble profession that should seek no compensation for its benefits and be content with the pittance ordinarily paid by those who seek its services, but in these days of beef trusts and coal trusts and exacting landlords we sometimes wonder whether the public are not turning a joke on the doctors and obtaining from us by unctuous platitudes services which they are compelled to pay for in genuine legal tender in any other profession or business. The following clipping from the *Southern Clinic* presents certain aspects of the subject which it might be well for the average medical man to think over :

"Every now and then we wake up from our treadmill service and find that we are very close to the man with the muckrake, when we compare our financial intake with that of the average business man or skilled laborer! Our carpenter gets four or five dollars a day when he is jobbing about our premises, and puts in a very short day at that, and spends very little brain force while earning his money. The pretty part of it is that he gets his pay cash and has no anxiety to keep him awake.

"The operator who sets this page on his linotype machine can easily make six or eight dollars a day with his own hands, though, unlike many artisans, he has a head full of brains, which he uses to our advantage, as our readers can attest from the freedom from errors usually seen in the *Clinic*. But when night comes he can rest without danger of being rung up at any hour to do an odd job of composition.

"Our plumber who picked up his trade while hanging around an old-time tin shop will not think of doing any kind of a piddling repair job on any property of ours unless he picks up five or ten dollars for a few hours' work in which a negro laborer at \$1.50 a day does all the work practically. Now, we are not growling about the charges that these people make, but we are alluding to the fact that they get good prices and collect their money cash. In other words, they do not work for charity, sentiment nor love, and leave their bill to stand, or be cut down, or never collected. They collect ample pay for their services, get the money and enjoy it in this life, instead of waiting to be rewarded in a better world. Now, as humiliating as it is to say so, the average physician does not collect from his incessant and trying work as much as five dollars a day, though he may book five thousand a year. The truth is, the doctor is a poor business man. He is so taken up usually in assuaging the pains, both physical and mental, of his unappreciative patients, that he forgets to demand and collect what is justly due him when he renders the service. It is a bad habit that too many of us drop into of being indifferent about promptly collecting our bills. It encourages our patients to neglect payments and makes them feel that we do not value our services very highly, and they will place a low estimate on our value accordingly. The only men making any money in the profession are those who put aside all sentiment and make the practice of medicine a business for what there is in it. The old-time once-a-year rendering of bills, or the hope that gratitude will stimulate the payment for our services, if relied upon now, will make a pauper of any physician who is dependent upon his practice.

"If you have been in the old rut, brother, get out of it to-day, or get out of the profession and make room for somebody with gall enough and sense enough to make as much money as a job carpenter or an average machinist."

SOME POINTS IN CONNECTION WITH INFANT FEEDING.

DR. JAMES BURNET, in the April number of *The Practitioner*, makes a strong plea for simpler and more rational methods of feeding infants. At the conclusion of his article he states that "It is the use of elaborate and hyper-scientific methods which retard our progress at the present time and hamper the average general practitioner in attaining to the success which his efforts merit."

Without doubt there has been great progress made in the

subject of infant feeding during the past two decades but there is need of the warning that we must not depart from the practical in our efforts to attain a scientific ideal. While there are many questions yet to be solved in connection with the problem of infant feeding there are certain facts which have been clearly established. A brief resume of these may not be inappropriate.

First, breast feeding is the ideal method whenever it can be utilized. Mother's milk is the only correct form of nourishment for an infant during the first nine months of its life and any substitute for it must never be looked upon as entirely satisfactory. This is not due merely to the particular percentages of sugar, fat and proteids found in mother's milk, which without much difficulty can be closely approximated by modifying cow's milk, but also to the peculiar character of the albumens found in mother's milk, and to its freedom from disease producing bacteria. Breast feeding, therefore, should never be abandoned unless there exists some positive or imperative reason for so doing. It is particularly important that breast feeding should be adhered to among the careless and the ignorant whenever possible.

Second, properly modified cow's milk is the most satisfactory substitute for breast feeding. Its superiority over the various artificial foods which are so popular among the laity and among some physicians has been so frequently demonstrated that further proof is unnecessary. While it is true that such artificial foods may, in a few cases, be added with advantage to cow's milk it may be positively stated that such artificial foods as are made without the addition of fresh milk are to be carefully avoided except perhaps as a temporary expedient in certain rare cases. Their habitual use almost certainly ends in producing rachitis, infantile scurvy or some other disease of malnutrition.

The important indications to be borne in mind in preparing cow's milk for infant feeding are cleanliness and simplicity in modification. The milk should not be sterilized except for a short time to meet special conditions, such as an attack of enteritis or colitis. The continual use of sterilized milk is attended with the same dangers as the use of artificial foods. Pasteurized milk is free from this objection and if the milk is pasteurized in the bottles in which it is to be fed to the infant we can rely upon it as being practically free from pathogenic bac-

teria. It is true that certain spores are not destroyed by this process but if the milk is kept on ice the development of the spores is retarded for forty-eight hours at least. In the cool seasons of the year, if we are sure that proper precautions have been observed in keeping the milk clean from the time it comes from the cow until we are ready to use it, even pasteurization may be dispensed with. When in doubt it is safest to pasteurize.

The modification of the milk is of course a question entirely apart from its bacteriological content. A great many methods of modifying milk have been advocated, many of which are so complex that long training in laboratory methods is necessary to carry them out accurately. It is to such methods that Dr. Burnet strenuously objects. From a practical standpoint we believe his objections are valid and that the advocacy of these methods tends to retard rather than to assist our progress in infant feeding. Burnet himself advocates the use of milk that has been heated almost to the boiling point and then mixed with an equal quantity of water. In his experience this has proved a very satisfactory food for infants and is far superior to sterilized milk or to artificial foods. He states that the gain in weight under this formula is often rather slow, as compared with other foods, but he believes that the mere laying on of fat is no advantage. We are inclined to the view that the failure of infants to gain rapidly in weight on this mixture is due to the low percentages of sugar and fat which it contains and believe its nutritive value would be much improved by the addition of one tablespoonful of milk sugar to each eight ounces of the mixture. Burnet might object that this was complicating the process, which is the very thing that he is trying to avoid, but we feel that while simplicity is desirable it must not be attained at the sacrifice of efficiency. On the whole it is probable that in the case of the average child the dilution of clean cow's milk with one, two or three parts of water, according to the age of the infant, and the addition of milk sugar followed by pasteurization of the mixture in the nursing bottles as advocated by Freeman is the simplest, safest and most efficient substitute for mother's milk yet devised. We are speaking now about the child of average digestive powers of course, and not referring to cases in which abnormal conditions have to be met.

GLEANINGS

PURIN-FREE DIET.—C. Watson (*British Med. Jour.*) declares that there is no special therapeutic value in a purin-free diet in the class of cases in which such a diet is often prescribed, but that the undoubted benefit which follows in certain cases is to be explained along other lines. Purins, says the author, are constructed on the base CN, e. g., uric acid, xanthin, hypoxanthin, adenin and guanin. These are present in certain articles of diet. Meat and meat extracts contain a large amount of purins; similarly certain glandular organs, such as the pancreas and liver, are rich in purins. They are also present, though in smaller amount, in many vegetable foods—for example, beans, lentils and oatmeal—and they are relatively abundant in some accessory articles of diet, notably tea and coffee. Purins which are taken in the diet are spoken of as exogenous purins. Purins in the tissues exist chiefly in combined form in the nuclei of cells and in the muscular tissues. Xanthin and hypoxanthin occur in muscle extracts, adenin is yielded chiefly by decomposition of nucleic acid present in thymus, and guanin is derived mainly from the pancreas. The purins in the tissues are spoken of as endogenous purins in contrast to the exogenous purins of the dietary. Purins exist in the urine chiefly in the form of uric acid, xanthin, hypoxanthin and adenin. Roughly speaking, about one-half of the purins in the urine are derived from the ingested food (exogenous purins), the remaining half being derived from tissue metabolism (endogenous purins). The author does not believe that there is at the present time any evidence that the purins bases *per se* are in any way more intimately concerned in the actual causation of gout and gouty disorders than is their ally, uric acid, which has now by common consent been discarded. Gout is probably due to intermediate purin metabolism arising from a defect in one or more organs, as revealed by the inability to produce the ferment or ferments required, as a result of which proper oxidation of uric acid does not occur, and the latter consequently accumulates in the tissues in the manner observed in gout.—*Med. Review of Reviews.*

THE PASSAGE OF MEDICINAL AGENTS INTO MOTHERS' MILK.—Bucura (*Zeitschrift f. exper. Pathol. u. Therap.*, Vol. 4, H. 2, 1907). The subject of the transference of medicinal substances taken by the mother into her milk and the possible interference with the welfare of the child is not yet sufficiently studied. Only certain medicaments, such as potassium iodide, sodium salicylate, æther, antipyrin, mercury as rectal suppositories, have been positively shown to pass into the milk. Furthermore, positive results in regard to atropin, morphine, arsenic, lead, zinc, copper and bismuth are based upon animal experimentation. The author administered 40 different drugs to nursing mothers, whose milk was then tested as to the presence of the respective medicinal agents. It was found that, contrary to the gen-

eral assumption, the customary laxatives, mineral salts, etc., do not pass into the milk. A peculiar behavior is shown by mercury. Calomel administered internally does pass into the milk, whereas no Hg could be demonstrated in the milk after mercury inunctions and injections. Substances which positively pass into the milk besides the above-mentioned drugs are aspirin, arsenic and bromides, probably also urotropin. It remains to be seen whether or not the administration of larger doses will result in transference into the milk in the case of certain other medicinal agents which yielded negative findings.—*Med. Review of Reviews.*

THE CAUSE, PATHOLOGY AND TREATMENT OF CHRONIC RHEUMATISM.—Stockman, *Edinburgh Med. Journal*, calls attention to the fact that the symptoms arising from implication of the fibrous tissues about the bladder and thorax often cause much mental anxiety to patients. In the case of the bladder the symptoms consist in dull pain and increased frequency of micturition, but they usually pass off in about a week. When the intercostal muscles and the fibrous tissues of the ribs and sternum are affected, each inspiration may cause pain or discomfort, and if the respiration be deepened by effort, the pain may become acute and darting or stabbing in character. When the fibrous tissue behind the pharynx is affected, the symptoms are chiefly subjective; the patient feels as if the parts were slightly swollen, stiff, and uncomfortable; but little or nothing can be made out on inspection. It is not known whether the pains in the muscles and bones in acute muscular rheumatism are due solely to a true rheumatic infection or whether they occur with several febrile conditions. The general treatment is that of a slight feverish attack and recovery takes place in a few days. If the pains are widely spread over the body, rest in bed, light diet, saline purgation, mild diaphoretics or mild alkaline diuretics hasten recovery and give ease to the patient. Sodium salicylate, alone or with phenazone or phenacetin, greatly relieves the pain and aching; or methyl salicylate may be applied locally. The salicylates, however, do not exercise the same immediate specific action which they show in acute articular rheumatism. A hot bath, followed by a copious perspiration or a Turkish bath, with well-applied massage, if taken in time, may abort the attack. Very often in such an attack the chief site of the pain is localized in the lumbar region, shoulders, neck, chestwall, or lower extremities, and in these places, the painful area is often small and results from serious exudation. The best treatment is massage followed by passive and active movements. One thorough application may be all that is necessary. The parts are very tender, and manipulations must be begun very gently by stroking so as to get rid of the exudation and relieve tension. Little by little more pressure can be borne, first with the palm of the hand and then with the fist or knuckles. The local inunction of methyl salicylate alone or mixed with an equal part of liquid paraffine, often relieves the pain, or a ten per cent. solution of menthol in liquid paraffine may be used. Local irritants, such as mustard leaves, are beneficial. In the case of chronic rheumatism, treatment is much more difficult and prolonged. Massage and exercises, the faradic current, and the injection of solution of chromic acid into any of the fibrous nodules, which are clearly enough defined for this treatment, are indicated. General massage is of no use. Treatment must be especially directed to any nodules and indurations

which can be felt and to parts which are painful.—*Charlotte Medical Journal*.

ROENTGEN, RADIUM AND PHOTO-THERAPY.—*Polnische Zeitschr. f. Dermatol. u. Veneriol.*, 1907, 7-9). The personal experiences of Kozeveski and Gorkiewicz with the X-ray and with radium and phototherapy in a large number of cases is as follows:

A. Roentgen therapy.

1. Superficial inflammations. Results in 24 cases of acne greatly surpassed in point of rapidity and convenience all other methods, especially in cases of iodide and bromide acne. In three cases of persistent hidradenitis a complete cure was effected in 24 hours after one sitting. In seven cases of vesicular eczema results were good, especially in two obstinate cases. Fifteen cases of syccosis barbæ were successfully treated, relapses occurring in five cases.

2. Infectious granulomata. Seventy-three cases of lupus vulgaris were treated. Results teach that Roentgen therapy should be used at first and later followed by radium or Finsen-therapy. Eight cases of scrofuloderma after a decided suppuration healed rapidly. Of two cases of tuberculous ulcer, one was cured by two treatments; the other only improved. In two cases of erythematous lupus the improvement was only temporary. Of 10 cases of lymphadenitis tuberculosa the treatment was completed only in seven. These cases showed a favorable result. Two cases of tuberculous epididymitis were not improved. One case was followed by azospermia. One case of rhinoscleroma was improved by treatment. Three cases of syphilitic ulcer that resisted specific treatment were benefited.

3. In one case of mycosis fungoides the tumors began to involute after five days, and after three weeks disappeared. No relapses occurred for several months.

4. Connective tissue new growths. Sarcomata reacted promptly to X-rays. Same disappeared with extreme rapidity, especially those that were superficial. The best results were obtained from idiopathic sarcoma without metastases in internal organs. A case of sarcoma of the mediastinum showed decided improvement. Several cases of angioma and 12 of rosacea were treated with good results. In eight out of 14 cases of chronic eczema with lichenification the treatment was without any results. The same was true of cases of neuro-fibroma keloid and keloid acne.

5. Ringworm and favus. With respect to rapidity, painlessness and permanence, the X-ray offers great advantages over other methods. Of 150 cases of ringworm and favus the writers were able to keep track of 140 cases—128 of these remained without relapses. Seven cases of favus and five of ringworm required further treatment.

6. Parakeratoses. In five cases of eczema tyloiticum and tylosis the lesions disappeared after one sitting in two to three weeks; in two cases, however, relapses appeared again a month later. In six cases of eczema tyloiticum with deep fissures a cure was obtained after two treatments, and three months later no relapses had occurred. In two cases of eczema orbiculare relapses rapidly followed healing. In psoriasis the X-ray has one of the best fields for usefulness, although as in other methods the treatment

is often only palliative. The X-ray treatment of four cases of alopecia prematura was without result. In three out of nine cases of obstinate alopecia areata good results were obtained. Two out of five cases of dystrophia unguium were cured after two months' treatment.

7. Epithelioma. Ninety-five cases were treated. Results were best in superficial forms. Improvement noted in some deep forms of carcinoma and even some bone cases showed improvement.

B. Radium treatment was used in some cases with good, in others with extremely fine results. Fifty-eight cases of lupus were treated, this method being used, as a rule, to treat individual nodules, which could not be removed by the X-ray. In an apparently hopeless case of tuberculous ulcer of the inner surface of the eyelids, in seven cases of lupus erythematosus, and in many cases of telangiectasis, nævus vasularis and angio-keratosis, good results were obtained. In several cases of verruca cornæa multiplices, epithelioma perle, ulcer rodens and carcinoma labii oris, the healing was only superficial. In eight cases of nævus pigmentosus a cure was reached after superficial ulceration. Four cases of keloid showed partial improvement only after severe reaction.

C. Photo-therapy. The dermo, Finsen-Reyn and Kromayer lamps were employed. The dermo-lamp was used in 14 cases of lupus vulgaris. Its action was superficial and weak. Only in one case of lupus tuberosus exulceratus was a complete cure made. Twenty-nine cases of lupus vulgaris and lupus erythematosus were treated with the Finsen-Reyn lamp. Of these, six were cured and remained free from relapses. The best results were obtained from the Kromayer lamp. In 37 cases of lupus vulgaris old obstinate lesions soon disappeared. The improvement in a case of lupus erythematosus was also rapid. Of 16 cases of alopecia areata only those refused to heal which were associated with severe disturbances of the central nervous system. One case of lichen of Vidal was completely cured. No effect was produced in cases of vitiligo, psoriasis and eczema orbiculare oris.—*Medical Review of Reviews.*

HOW DO YOU TREAT GALLSTONE COLIC?—Frank B. Kirby, M. D., contributes the following article, which was awarded the prize by the *New York Medical Journal*. A case of gallstone colic demands immediate anodyne treatment. I give at once chloroform inhalation of a hypodermic injection of morphine sulphate $\frac{1}{4}$ grain, and atropine sulphate 1-100 grain, repeated in half an hour if necessary; externally the hot turpentine stupe or mustard plaster over the gallbladder. However, if the case is mild in character, with slight pain, it will be relieved by

B Strychnine sulphate1-60 grain,
Hyoscyamine sulphate1-250 grain,
Nitroglycerin1-200 grain,

with hot water, repeated every 10 minutes to effect, usually three or four doses.

After pain the next most urgent symptom may be vomiting, although this may be slight or absent. If slight, it tends to overcome the spasm of the muscular structure of the duct, and if severe the drugs already used will tend to correct this trouble.

A third concomitant symptom is jaundice; this also may be absent. Jaundice is corrected by the use of the hot pack and fractional doses of calomel, say 1-6 grain for eight to 10 doses to aid the emunctories, skin, kidneys and intestines, without the usual subsequent saline, as the liver needs what bile is in the intestines to be absorbed for future use. The saline would cause a diarrhoea, and deprive the body of the valuable bile salts.

We determine the gravity of the situation after relief of its most urgent symptoms. Should we get a hectic temperature with leucocytosis and physical signs of distended gallbladder, all pointing to pus formation, we urge early cholecystotomy and removal of the stone. Should we decide on its benign character we give palliative treatment. This in effect is prophylactic as well.

Realizing its pathology we recognize no danger from the concretion, *per se*, any more than a bullet encapsulated in the tissues. But as a possible cause of future trouble we determine on (1) the solution of the stone, and equally as important, (2) comparative intestinal asepsis. These we accomplish by the use of sodium glycocholate mass in three-grain doses four times daily, with five-grain doses of sodium succinate during several months. The former is one of the few true cholagogue drugs, the latter has distinct value as an antiseptic and solvent for the concretion. Sodium succinate may be replaced by salol or sodium salicylate in the same dose.

The foregoing deals directly with the stone already formed. But true prophylactic treatment will not only prevent the hepatic colic of existing stones, but prevent the formation of other stones. Gall-stones are, chemically, cholesterin and calcium bilirubinate, which are only precipitated from bile to form stones, by being in excess over their natural solvents, the glycocholate and taurocholate of sodium. This change is probably due to hepatic torpor and intestinal toxæmia, due to constipation and the sedentary habit.

I have never seen good results from the use of olive oil, and, in fact, restrict fats in the diet, also meat, substituting fruits and vegetables. It is also best to omit tea and coffee, and advise the free use of water. Walking in the open air is of avlue.

Exercise, correct diet, intestinal antiseptics with cholagogue drugs form the keynote in the prophylaxis of gallstone colic.—*Medical Review of Reviews*, April, 1908.

FOUR CASES OF ADIPOSITAS DOLOROSA (DERCUM'S DISEASE).—By Dr. Sezary (*Revue de Medecine*, December, 1907). The author describes four cases of adipositas dolorosa, characterized by local or general deposition of fat, pain, asthenia, and psychic disturbances. The first patient, in whom one segment of the body was affected, also presented sensory disturbances, but there was a possible complication by alcoholic neuritis. While all these cases occurred in women, there was no etiological reason for assuming a connection of the adipositas dolorosa with changes in the ovaries, the thyroid gland, or the hypophysis. In two instances, the disease developed after childbirth. A relation to the menopause could not be determined. The first patient was syphilitic, another was tuberculous, and still another suffered from glycosuria. There was a fifth patient, who, in

addition to Dercum's disease, presented aortic insufficiency and reflex rigidity of the pupils, possibly of syphilitic origin.

Among the various symptoms of this disease, one or the other may preponderate, may be absent, or obscured by the other manifestations. The obesity is either diffuse, or nodular, or it may affect one segment of the body. Any pressure upon the fatty tissue, which often develops after a period of weakness, is extremely painful and readily produces ecchymoses, which are referred to a vasomotor instability. At first the condition frequently represents a more or less edematous swelling of the tissue, and this is followed by the formation, deposition, and accumulation of fat.—*Post Graduate.*

TECHNIC OF PROLONGED RECTAL SALINE INFUSION.—Seidel describes the technic which has proved extremely satisfactory in recent years in Lindner's service at Dresden. He gives an illustration of the small stand for the irrigator; it is screwed to the edge of the bed and allowed the irrigator to be raised or lowered at will, although the pressure is always very slight. It is important to use a tube too small to induce mechanical irritation of the sphincter; a Nelaton No. 20 answers the purpose, with a smaller one for children. A pint of the fluid is poured in the irrigator and the stopcock turned to allow the passage of only about one drop a second. At this rate five hours are required for infusion of one liter. Seidel thinks that one or two liters a day are sufficient, and even in the severest cases does not go above two or three. Cool fluid seems to stimulate the peristalsis more than warm, and there is no need for keeping the fluid in the irrigator at any special temperature. The body is supplied with the needed water, and the bowels stimulated to normal functioning. It is specially valuable in peritonitis.—*Jour. A. M. A.*

LENGTH OF TIME IN BED AFTER PHYSIOLOGICAL LABOR.—Bouchacourt (*La Presse Med.*) discusses the time it is necessary for a patient delivered normally and having a normal puerperium to remain in bed. The length of this time differs in different countries and nations from a few hours to several weeks. Among savage nations it is well known that the mother is confined when on the march, accomplishes her own delivery, and goes on her way with the others. In some country districts it is a matter of emulation among the women to remain in bed as little time as possible before undertaking all the household work, and yet there seem to be few bad results. Among the richer classes, on the contrary, it is the habit to remain in bed a month, and it is difficult to get the patient to leave her bed. The consensus of opinion at the present day seems to be that it is best, in order to secure perfect involution, to remain in bed for two or three weeks, and to return gradually to the ordinary duties of life.—*Charlotte Medical Journal.*

ATROPHY OF BOTH TESTICLES AFTER CONTUSION.—Groussin had a patient, aged twenty years, who had had two attacks of mumps, one when he was six years old, and one when he was fourteen. It was eighteen months after the second attack that, in a fall from a wagon, he bruised the right testicle, which atrophied after two and a half months in bed. When he was twenty-one years old, he fell while climbing a mountain. The left

testicle was pressed against a hard object in the pocket, and in its turn atrophied after two months in bed, made necessary by the traumatic orchitis which was induced. Groussin, when called to see the patient, tried injections of orchitic fluid. These injections seemed at first to yield some results on the left side, but were continued in vain. Later it will be possible to judge of any improvement, although it now appears doubtful if any will take place.—*Le Bulletin Medical*.

INTERSTITIAL KERATITIS AFTER CALMETTE'S TEST.—Arnold Knapp (*Archives of Ophthalmology*, March) reports a case of typical tuberculous keratitis in a previously healthy eye following the use of Calmette's ophthalmo-reaction. The installation of the tuberculin solution produced severe local and general manifestations, which, unfortunately, demonstrate that the ophthalmo-reaction cannot be regarded as altogether and always harmless.

A DIPHTHERIA CASE CURED WITHOUT ANTITOXIN.—By Richard Blackmore, M. D., Bellevue, Pa.

M. D., age 35, rugged and strong, "never sick a day."

October 12, 1907, complained of being sore all over and cannot get warm; pulse 88, temperature 102.4.

Examination of throat revealed a deposit on posterior faucial pillar, right side, dirty looking as though decayed in the middle; detached patches near by; rest of mouth clean and bright red. Tonsils swollen and red. Difficulty in swallowing disproportionate to the amount of faucial involvement.

Jaw stiff so that the mouth is opened with difficulty. Skin hot and dry. Cold and cannot get warm, in spite of increased clothing and hot fire.

Advised cold pack around throat and gave Merc. i. f. 1m. One dose on tongue and another in divided doses in water.

A culture from the throat was positive as to the Klebs Loeffler bacillus. The case went along improving daily with quick return of the patient's virility until the 16th, on which day, as there had apparently been a "stand still" for 24 hours, another dose of Merc. i. f. 1m. was given and on the 17th the throat was entirely clean. The patient felt "better than for months." A culture taken proved negative and the case was discharged.—*The Medical Advance*.

A CASE OF EPITHELIOMA OF THE LID HEALED BY THE LOCAL APPLICATION OF CHLORATE OF POTASH.—The patient, a man of 55 years, stated that eight years before he had had a mole burned off the lower left eye lid, which was followed by the formation of a pimple which later broke down. There was no pain, but at times a slight bloody oozing. A triangular ulcerated area involved the skin of the lower lid, its base extending along the free margin from the inner canthus to a point beyond the median line. The inner half of the ulcer was much deeper than the outer and was covered by a brownish, dry secretion, the margins were irregular and indurated, and there was ectropion of the lower lid.

The surface was first cleansed and then powdered chlorate of potash was thoroughly rubbed into the floor and edges of the ulcer, at first every day, later every other day. After a week of this treatment the ulcer gradu-

ally diminished and is now healed. There is little ectropion, and the mucous edge shows exuberant granulations.—William Zentmayer, *Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

IS MINER'S NYSTAGMUS OF LABYRINTHIAN ORIGIN?—The author claims the disturbances of the ocular muscles are causative, but does not believe that they form the one ætiological factor in Meniere's nystagmus. A satisfactory explanation of their participation in various central affections is to be found in the conditions of circulation and nutrition of the nuclear region of the eye muscles, and that the involvement of the ear, with particular references to Meniere's symptoms, is very doubtful. He believes that more importance should be ascribed to the psychical co-action, which seems to be indispensable to the occurrence of vertigo. In many cases ocular vertigo quickly follows diploopia and false projection, although diploopia obtained by simple mechanical displacement of the eyeball is not accompanied by vertigo because the psychical factor enters and acts as a regulator. He states that the ability to work eight hours or more with the eyeballs directed upward can be obtained only through a compensatory backward tilt of the head, and that in such a tilt is to be found the influence which causes the non-appearance, or late appearance of the symptoms of fatigue. He argues that a redistribution of the endo lymph in the vestibule is produced by gravitation when the head is bent backward as a compensatory movement to a certain upward movement of the eyeballs. If this marked backward movement of the head is maintained for months and years for eight or more hours a day, a new condition of equilibrium will be brought about to a certain degree in which the backward head and upward turned eyes will have adjusted themselves to the position of the rest of the body, which is one more or less vertical. If now with the return from work the position of the head and eyes is changed to the upright, an irritation in the vestibule will be caused by the change in equilibrium which may be manifested in a reflex manner from the central apparatus to the eye muscles.—Dr. A. Peters, *Archives of Ophthalmology*.

WILLIAM SPENCER, M. D.

NON-SURGICAL TREATMENT OF LAMELLAR AND NUCLEAR CATARACT.—Bernstein, Edward J., after discussing the various theories concerning the origin of this form of cataract, proceeds to give the case history of three patients, one a child of six, one a woman of seventy-two, and the third a woman of seventy, in all of whom well marked cataracts were found. Subconjunctival injections of dionin solutions of various strengths were used with marked improvement in vision in all three, although the lenticular opacity did not entirely disappear.—*Ophthalmology*.

WILLIAM SPENCER, M. D.

ALOPECIA AREATA. TREATMENT OF WITH FORMALDEHYDE.—J. J. McInerney, in the *British Med. Jour.*, suggests formaldehyde in the treatment of intractable cases of alopecia areata. The treatment consists of painting the lesion with a 20% solution of formaldehyde daily, for a week or two, or at least until inflammatory reaction presents itself. A sedative ointment is then applied until the inflammatory condition recedes. The formaldehyde solution is then again continued, ceasing its use as soon as signs of

inflammation appear. The case cited by McInerney was treated with this method for nine months, the patient then regaining a full growth of hair which has remained perfect a year after.

RALPH BERNSTEIN.

PRURITUS. TREATMENT OF WITH CAUSTIC POTASH.—Kromayer in the *Deutsch. Med. Woch.*, gives the routine of treatment for pruritus with the use of a 15% solution of caustic potash, claiming the treatment to be most effective. He begins the treatment by applying to the affected areas a 15% solution of caustic potash by means of absorbent cotton, which has been moistened with the solution. The caustic solution must be thoroughly washed off with water, in from 5 to 30 seconds, depending on the thickness of the epidermis. This means, however, is not to be applied where there is inflammation present or to mucous membranes. While the process is apt at times to be slightly painful, Kromayer contends that the patient never objects, being only too anxious for the relief which will follow. The author follows the treatment as outlined above, with soothing ointments or moist compresses, healing usually being complete in a few days. Kromayer has treated 160 cases, all with excellent results, some cases responded immediately with a cure after one application, other cases demanded several courses of treatment.

RALPH BERNSTEIN.

NEWER DERMATOLOGIC REMEDIES. ICTHYOL, YEAST, ZINC, PEROXIDE.—The ichthyol-sulphonate of ammonium, contained within ichthyol, does not easily produce inflammatory reaction; it is therefore ideal in those conditions demanding sulphur when the skin is too tender and sensitive to withstand its reaction. Ichthyol is strongly antiparasitic, reduces pain and inflammation, decreasing tension in the affected area. The sodium salt of sulphonic acid of a synthetically prepared sulfo-oil, known as thigenol, is similar to ichthyol, and has the decided advantage of being practically free from odor. Ichthyol is recommended in the treatment of chilblains, sub-acute eczema, acne, acne rosacea, many of the erythemas and scabies.

Yeast. The active constituent of yeast known as ceredin or cerolin, has been used by numerous observers both in this country and abroad, and has reported good results in bad cases of furunculosis and acne-pustulosa. It is best administered in pills containing $1\frac{1}{2}$ grs., beginning with 2 a day after meals, and gradually increasing the dose as is necessary. Under the ceredin treatment it has been noted that there is a marked absence of recurrence in boils.

Zinc Peroxide. Common leg ulcers respond very well under topical treatment with zinc peroxide, which slowly evolves oxygen while in contact with granulation tissue, being itself reduced to a simple oxide. The maceration so often seen in severe cases of hyperidrosis pedum can be relieved and benefitted by the application of zinc peroxide.—*The Hospital*.

RALPH BERNSTEIN.

THE OPERATIVE TREATMENT OF THROMBOSES OF THE EXTREMITIES.—Becker. *Zentralbl. f. Gyn.* 1907—1354. In place of the expectant treatment consisting of rest, elevated position, etc., Becker advocates in all cases of recent progressing thrombosis of the saphenous vein the careful

ligation of the affected vein with extirpation of the thromboses portion, as Muller has done for fourteen years with good results. If the procedure is carried out before the disease has extended to the femoral vein, the danger of advancement of the disease is removed, together with the danger of pulmonary embolism and pyaemia. This removes the local disease, the varices and their threatened consequences, ulcer and eczema.

THEODORE J. GRAMM, M. D.

THROMBOSES AND EMBOLISMS AFTER GYNECOLOGICAL OPERATIONS.—Zurhelle, *Zentralbl. f. Gyn.* 1907—1309. The gynecologist sees post operative thromboses most frequently after myoma operations. The cause is probably to be found in the condition of the myocardium damaged by chronic anaemia, ergotin treatment, etc. Next in frequency they occur after malignant tumors. Other gynecological have no special importance in this respect, except such as is associated with wound infection, heart disease and anaemia. As favoring the occurrence of thromboses are cooling of the abdominal cavity during operation, injury to vessels, damage to the heart by the narcosis, impaired venous circulation from the lower limbs from too tight bandages, meteorism, and too prolonged dorsal decubitus. There is probably no one cause, but several act in conjunction. This disease more frequently affects patients of the better class, probably because these have less resistance and by reason of deficient exercise have defective circulation, impaired nutrition of the muscles and weak heart.

Thromboses after gynecological operations appear in three forms: 1, of the pelvic veins. These cause difficulty in diagnosis, and often lead to pulmonary embolism. 2, of the deep veins of the leg, the most frequent form. This variety begins usually just below Poupart's ligament or in the popliteal vein, and arises usually from mechanical causes. 3, of the saphenous vein, with redness of the skin, hard bands, and knots. Pulmonary embolism is not associated with this form. The author was not able to confirm the observations of others, that with a normal temperature, there is a steadily increasing pulse rate. He lays much stress upon preventive measures, such as good diet, transfusion of salt solution, heart tonics, etc. Also avoidance of severe catharsis; of fasting on the day of operation, but rather a moderate diet; no prolonged washing of the abdomen while on the operating table; keeping the patient warm during operation; a small abdominal incision; avoidance of loss of blood, protecting the pelvic veins from injury, etc. The author also advocates early getting up after operation, if no contra indications exist.

THEODORE J. GRAMM, M. D.

ADRENALIN.—In an article by Nue, giving an answer to V. Velit's paper on the action of adrenalin in osteomalacia, the author says that the dose of adrenalin is scientifically fixed, and it consists in 0.0001 per dose, at most 0.0003 at short intervals; 0.0005 or even 0.001 per dose are under all circumstances hazardous. The statements in the literature about the attendant effects, giddiness, headache, nausea, vomiting, collapse, palpitation, precordial distress, cyanosis, dilatation of the pupils, are significant * * *

According to our present knowledge of the universal activity of

adrenal preparations, we must regard its most pronounced action on the circulation as a heart and vessel remedy. The increase of blood pressure, the slowing and enlargement of the pulse, the strengthening and ultimate hastening of the heart's action, prove this. The severity of these symptoms just as its many other effects, for example the contraction of the erector pilorum, of the uterus, of the seminal vesicles, etc., depend upon its place of application and upon the size of the dose. Further on he shows that it has a pronounced action in exciting the contractions of the uterus.—*Zentralbl. f. Gyn.* 1907—1129.

THEODORE J. GRAMM, M. D.

THE ETIOLOGY OF PUERPERAL RETROFLEXION OF THE UTERUS.—Olshausen says puerperal retroflexion usually occurs after the first delivery, and rarely after subsequent pregnancies because the conditions are different then. During the later weeks of the first pregnancy the head enters the brim of the pelvis and sometimes rests below that line, and consequently the soft parts of the uterus and vagina are pressed downward and become greatly stretched. The cervix is particularly affected in this manner, and the tissues are often so much thinned that the cephalic sutures may be felt through it. After delivery such a cervix may be found wrinkled into folds. Such a thinning of the uterine walls does not occur in later pregnancies. A further thinning of the cervical wall occurs during labor, when because of the resistance of the soft parts the strong contractions further stretch the cervix, so that the cervical canal may become elongated even to ten centimeters. It is this thinning and consequent weakening of the lower part of the uterus which causes the tendency to flexion. In some instances the flexion is anterior; but then the frequent filling of the bladder tends to correct the flexion. Patients should really be examined a few weeks after delivery for this defect. At such a time a short treatment with a pessary will remove any permanent flexion.—*Zentralbl. f. Gyn.* 1908, 1.

THEODORE J. GRAMM, M. D.

LIGHT AS A DISINFECTANT.—In spite of asepsis and suitable technique cases of infection occur. This is particularly true in unclean cases who bring the septic germs with them upon the operating table, as for instance, uterine carcinoma and suppurating fibroids. Under such circumstances a recently made wound may become infected. The indications, of course, are to increase the resistance of the patient, and to destroy the microorganisms which obtained access to the wound. For the latter purpose chemical disinfectants come into view; and yet they are entirely unsuited for the purpose since they are useless and harmful. Franz (Jena) has made some experiments to determine the usefulness of light as a disinfecting agent. It has already been determined that light is harmful to bacteria. They may be destroyed directly or indirectly by inducing hyperæmia, leucocytosis, and multiplication of the toxins. The author's experiments consisted in infecting an intra-abdominal wound in rabbits, and then subjecting the animal to the action of the ultra violet rays. He was able to demonstrate the injurious action upon bacteria, and concludes that in animal experiments the disinfecting action of light is undoubted, and might also be useful in infected cases as mentioned above.—*Zentralbl. f. Gyn.* 1908, 4.

THEODORE J. GRAMM, M. D.

LITHOPEDION OR LITHOKELYPHOPEDION THIRTY-TWO YEARS OLD REMOVED FROM A WOMAN SIXTY-SEVEN YEARS OLD.—Hayd (Buffalo) reports this curious and interesting case. As is well known, this is one of the terminal stages of extra uterine pregnancy, and although not common, is now and then encountered. The patient was sixty-seven years and seven months old. She was married at the age of twenty-two years and at thirty-five she missed the monthly period for the first time in her married life. She soon suffered much pain in the left side of the lower abdomen and was compelled to spend most of the earlier months of pregnancy on a lounge. Quickening occurred at the fifth month. At the end of the ninth month she had spurious labor attended by some bloody vaginal discharge. After many hours of fruitless labor the pains subsided. Thereafter the abdomen became smaller, and in a few weeks the patient went about her daily duties. Climaxis came on at the usual time. At the age above stated the patient was brought under the observation of the author because of suffering from pain in the abdomen and weakness. The diagnosis then made was fibroid tumor. At the operation the interesting specimen was successfully removed.—*Amer. Jr. Obs.* Vol. 56, 657.

THEODORE J. GRAMM, M. D.

PHLEBITIS FOLLOWING ABDOMINAL OPERATIONS.—Pfaff (Indianapolis) in writing on this subject says it is generally conceded that phlebitis occurs in about 2% of operations. It is but a few years ago that any sort of inflammation or elevation of temperature following a surgical operation was fully accounted for in the mind of the conscientious surgeon by the one word "infection;" but to-day we know the matter is not so simple, and in many instances it is difficult to ascribe any influence in the production of phlebitis to infection; at least the bacterial invasion is in most cases only operative in conjunction with peculiarly inviting conditions of the blood. Phlebitis is sometimes the result, and in other instances the cause of thrombosis—the original clot depending upon either a change in the blood itself, or upon some damage inflicted upon the vein wall, whether from the inflammation or traumatism. It seems we are justified in accepting as facts: (1) Many of these cases are simply extensive aseptic blood clots, without any true inflammation. (2) An abnormal plasticity of the blood must be present in order that thrombosis may be the result of surgical traumatism. (3) The clot generally receives a mild form of infection introduced into the wound at the time of the operation, and in turn an invasion of the vein wall results. (4) As stagnation is such an important element in the etiology, getting our patients up earlier will undoubtedly reduce the liability to thrombosis. (5) As an abnormally high degree of plasticity of the blood is essential in developing the disorder, the blood ought to be tested by some recognized standard in every case, and if found in a dangerous state, operation should be postponed until medication shall have brought it back to a normal condition.—*Amer. Jr. Obs.* Vol. 56, 630.

THEODORE J. GRAMM, M. D.

THE DIAGNOSIS OF SHOULDER PRESENTATIONS.—Kocks says that every one knows of the difficulties in diagnosing these positions, and describes a method he found useful. If the presentation be actually that of the

shoulder, it will be easy to bring down the nearest hand, if the latter is not already protruding. This hand is then to be supinated as far as possible, when the thumb will point to the side of the mother where the child's head lies, and the back of the hand will be directed so as to indicate where the child's back is. The diagnosis having thus been established, a fillet is placed upon the hand, or it is entirely disregarded and the version is performed.—*Zentralbl. f. Gyn.* 1907, 1616.

THEODORE J. GRAMM, M. D.

MENSTRUATION.—Leopold and Ravano have studied this subject anew and conclude their comprehensive article with the following deductions:

1. Menstruation, that is the periodic discharge of blood from the uterus depends upon the presence of the ovaries and upon the proper development of the uterine mucous membrane, and not upon the simple rupture of a Graffian follicle.

2. Shortly before and during the rupture of a Graffian follicle in most cases a distinct congestion tends to occur in the ovaries. This is most likely the cause why ovulation and menstruation are simultaneous.

3. When a Graffian follicle is ruptured a corpus luteum forms, whose age may be determined with relative certainty up to the seventh week.

4. Occasionally ovulation follows a certain cycle, or it may occur irregularly; mostly, however, its periodicity is the same as that of menstruation.

5. In more than one-third of all cases ovulation is not co-incident with menstruation.

6. Ovulation may occur at any time, even without any uterine hemorrhage. From this fact it is quite likely that conception may take place at any time.

7. Menstruation may occur without ovulation.

8. Even during senile atrophy of the ovaries, entirely normal follicles and corpora lutea may form, and from this we may conclude that ovulation may occur after climaxis.—*Arch. f. Gyn.* Vol. 83, 566.

THEODORE J. GRAMM, M. D.

THE FUNCTION OF THE OVARY DURING PREGNANCY.—Ravano considers this question quite fully, and concludes: There is no difference either in the form, substance, or contents between the corpus luteum of menstruation and of pregnancy. The designation heretofore used of corpus luteum spurium and corpus luteum verum is not correct, all should be called corpora lutea vera irrespective of whether the ovum became impregnated or not.

2. The assumption is not correct that the corpus luteum graviditatis remains in the ovary during the entire duration of pregnancy, since it may disappear, although it rarely does, without leaving any trace.

3. In most cases of pregnancy there is a tendency to ovulation.

4. In some cases of pregnancy complete ovulation occurs.

5. Ovulation during pregnancy is not so rare, since it takes place in 5% of cases.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

IF THE EXPRESSION OF DISEASE, either general or local, is inadequate for the purposes of a remedy, or if the symptoms presenting themselves are nothing more than reflex symptoms, may we not by the aid of surgery bring about a new situation, a new utterance of disease from which the remedy is now evident? From a patient otherwise so well that he presents no symptoms, we remove, say, a perfectly dead mass, that is, dead to the remedy; or we remove a tumor that is mechanically giving us only reflex symptoms; in doing so we are creating an opportunity for the chronic disease to express itself anew. It may now manifest itself in some other part or organ and with symptoms no longer vague. We study the patient with new eyes, and now the homœopathic remedy covers the case where before there was no hint of its applicability. Our resort to surgery has not been a last resort, but an intermediate step in the discovery of the homœopathic remedy.—*Lawrence M. Stanton, M. D., New York.*

How NOT to Do It.—The other day we were told of "an infallible cure for diphtheria" and received the following from the daughter of a physician, long since dead, who enjoyed a reputable standing a generation ago. We print it as a curiosity; surely no graduate of to-day would be guilty of such practice.

"For diphtheria.—Aconite, belladonna, bryonia, cantharides, cinnabaris together in one glass.

"Ipecac for vomiting. Veratrum for coldness if needed.

"At the same time fix kali bichromicum and hepar strong, take alternately to prevent croup.

"Gargle five drops of cantharides in a glass of water every half hour, at the same time that you take the medicine. You may need mercurius protoiodide for gargle if the other does not do, but cantharides ought to.

"Bryonia 30 if typhoid symptoms show any sign of coming on. If nose bleed sets in snuff Pond's Extract up the nose, at the same time take two drops on a lump of sugar.

"If weakness appear give arsenicum and plenty of nourishment to build up the patient quietly. If taken in time the patches seldom ever trouble you, as cantharides attends to that."

And that doctor was called a homœopath!

—*The Hom. E., E. and T. Jour.*

THAT THE INCAUTIOUS USE OF THE X-RAY may and does produce carcinoma, is abundantly established and should have wide publicity in view of the fact that the use of X-ray apparatus is so general. In 1904 Dr. Richard Muhsam published an authoritative study of this matter which included ten cases from unquestionable sources. Since then there have been at least two or three additions to the list, including that of Professor Fuchs, of Chicago, who died recently from this cause. In the *Annals of Surgery* Dr. C. A. Porter, of the Massachusetts Hospital in Boston, and Dr. C. J. White, of the chair of Dermatology in the Harvard Medical School (who furnishes the pathological report), present an exhaustive subject under the title, "Multiple Carcinomata Following Chronic X-ray Dermatitis." The pathological sequences leading finally to the fully developed carcinoma is graphically stated in the following paragraph:

"From 1897 the literature of this subject has grown each year. The earlier articles dealt with the immediate effects of the X-rays, dermatitis and burns; then it soon became recognized that these lesions were most excruciatingly painful and extremely slow to heal; further experience showed that some lesions closed with great difficulty only to break down again and again, and finally formed chronic ulcers—then came the first report of cancer developing in a chronic ulcer, and finally the first death from metastatic carcinoma."—*Iowa Homœopathic Journal*.

"KNOWLEDGE COMES BUT WISDOM LINGERS."—Julia H. Bass, M. D., Austin, Texas. Just here she remarked as I swept the examining finger around the os: "There's a little spot in front that hurts as you touch it." My finger lingered seeking the lesion, and Wisdom lingered too—for had I not often read under "Pregnancy" in the proving of *Sepia* the verified symptom: "Tenderness of the anterior lip of the mouth of the uterus?" But the rest of the condition as described under *Sepia* in the book was not present, and so, miserere me, my patient had to suffer a while longer. It was now broad daylight of a November morning, the patient twelve hours in labor. I administered a half grain tablet of morphine and atropia. Do not the books teach us that a complete cessation from contractions for an hour or so will often rest Dame Nature so that she will take up her work with renewed vigor? Well, this time she didn't. Patient dozed lightly, occasionally moaning with pain. Two hours more, os low, vertex presenting, a weak, tired girl now saying: "You must do something for me, use the instruments if you think best." I left the room to advise the husband and phone for short-handled forceps. On returning there was surely something in the face not seen there before; a yellow circle about the mouth and astride the nose hung a saddle. I looked at the curtains, had somebody changed the light? No, all was as before except for the signal lights hung out on that countenance that served to illumine my mentality. Reaching for the *Sepia* vial, it happened to be the 1 m., a dose went on the tongue with the assurance that *that* would make her more comfortable while we waited for the forceps. In three minutes she said: "Ugh, here comes an awful pain. Nurse, Doctor, pull!" Three such efforts in a space of nine minutes by the clock, smilingly borne, and Pres. Roosevelt had another subject in Texas. The recovery was absolutely natural, no fever with laccation and no medicine during the fourteen days of her sensible lying-in.—*The Clinical Reporter*.

THE SANATORIUM TREATMENT OF MENTAL AND NERVOUS DISEASES.—Dana F. Downing, M. D., West Newton, Mass.— . . . Most patients who finally came to the sanatorium—I use the word “finally” advisedly, for many of them do everything else possible before thinking of the institutional treatment—have undergone many and varied courses of treatment according to their resources. Every nervous case, at some period, has been “toned up.” In attempting the tonic treatment of these disorders one is building a house upon the sand. It is building upon a false, abnormal, and unsound foundation. Our patients must first become relaxed before the “toning up” process can be profitably undertaken. They must feel weak and good-for-nothing; they must lose that high tension that they have—that artificial feeling of capability and well-being which comes on as evening approaches. This relaxation is brought about in the sanatorium by rest, massage, baths, and other agents to be spoken of later. Once a patient is thoroughly relaxed we have a safe foundation upon which to build. . . . So many of the cases that come to the sanatorium are victims of unwise bathing habits. A patient has read in some newspaper or magazine that the cold plunge bath, taken each morning upon rising, is an excellent procedure. “It wakes one up so thoroughly in the morning.” Or a kindly friend recommends the cold sponge bath every day. Both these forms of bathing are good for some people, but the proportion of persons who may take them safely is exceedingly small. Cold bathing, except in cases of hysteria, is distinctly contraindicated in nervous diseases. The harm that may result from this daily severe shock to the nervous system is incalculable. . . . Many of our patients require complete mental and moral reformation. Their education in thought and action has to be begun. Patients are forbidden to talk with other patients of their own symptoms or the ailments of their neighbors. The visits of the physician often partake more of the nature of social than of professional calls. To be able to cheer and encourage a patient frequently does more real good than any medicine or other treatment that can be given. So that if you find the sanatorium physician depressingly cheerful you may ascribe its cause to extensive and protracted experience in that state of mind. The psychic treatment, as this influence upon the patient of physician and nurse may be called, is of the greatest importance. I can not conceive of any successful treatment of mental and nervous disorders without it.

NEW YORK STATE BOARD OF MEDICAL EXAMINERS.—Dr. Herbert Dana Schenck said the following in his presidential address to the Homœopathic Medical Society of the State of New York, referring to the recent law for granting license to practice medicine in that State:

“The bill does not require an examination in therapeutics or *materia medica*. Since the beginning of civilization, all people and times have believed in the efficacy of drugs in disease, and physicians have always used drugs for treating their patients. It would seem, then, that the cornerstone of any examination for a license to practice medicine must be to find out whether a man had a sufficient knowledge of drugs and their proper administration. That he must have a knowledge of the collateral sciences of anatomy, physiology, chemistry, pathology, etc., everybody admits, but that the colleges can be left to take care of the knowledge of the students in *materia medica* and therapeutics, but not in anatomy, physiology, chem-

istry, etc., seems to be entirely at variance with human experience. Students work on the subjects upon which they are to be examined and teachers bend their energies toward making their students meet whatever requirements may be set, be it a promotion, entrance to college, or what not. If materia medica and therapeutics is a "specialty," as was said in the Legislature last winter, the practitioners of homœopathy must stand in this class by themselves."

SYPHILIS.—J. B. G. Custis (Washington): I am glad of the opportunity to give my testimony that homœopathic remedies are capable of curing syphilis. In the last few years I have yielded a little in a few cases to the extent of using nitroglycerin as a heart stimulant, and I have not been able to see that the effect was as good as if I had prescribed the homœopathic remedy alone. In syphilis I have never been tempted to use any other than the resources of homœopathy. I have watched the vaunted old school treatment, and I have not been able to see that it was as safe, as prompt or as sure as the little pills properly prescribed.

Syphilis has been a great bugbear—a terrible disease—by the mercurial treatment that it has received in times past. It is not such a terrible thing when allowed to run an uninterrupted course, and it is entirely amenable to the homœopathic remedy. Very often a case of disease of the retina, or of the iris or some obscure disease of other parts of the body is attributed to specific sources when really it has nothing to do with it. Such cases are often and most unwarrantably filled up with mercury and iodid, producing a condition that is very hard to cure. Cinnabar and other forms of mercury, kali bichromicum and kali iodid are certainly very apt to be indicated in syphilitic disease, and it is because of the frequent indications for mercury that the old school are more successful in specific diseases than in other kinds of ailments. Furthermore, I know from experience that a case showing mucous patches, sore throat and eye inflammation which would be cured by the smallest doses of mercury will be suppressed by large doses, and while the local symptoms may disappear, the general system has to suffer.

I remember one case in my early practice, before I had my diploma. I prescribed for her and I am thankful to say that she is still living, though she gave me the worst scare I ever had. She had syphilis, been treated, gone from bad to worse, and finally given up. I went over her symptoms and history, but was afraid to prescribe until I had seen my preceptor. He said go ahead, and that if she died he would sign the death certificate. Because of her peculiar pallor, demand for air and other symptoms I gave her lachesis on the start. She had been loaded up with mercurial preparations, and I found out that as long as I kept to vegetable drugs I was safe. She finally got well, and is still living owing to the action of remedies all as high or higher than the one thousandth.

Remember that there is no such thing as a specific for a disease, but there is a specific for each patient; that specific is the remedy indicated by the symptoms.

Syphilinum is not a specific for syphilis; not one of the nosodes is a specific for the disease which gives it its name. It is contrary to our teachings, contrary to experience, and contrary to true science to expect and look for specific remedies for disease, *per se*. The true way to cure syphilis

or anything else for that matter is to individualize.—*H. C. Allen, Chicago.*

Hahnemann says in his "Chronic Diseases" that when mercury is indicated in a case of syphilis, a few doses of the best preparation—mercurius solubilis 30—will cure, but if it does not it is because that patient is deeply psoric. Then you must stop the mercury and remove the psoric condition first. After that the mercury will cure the syphilis.

Syphilinum will sometimes be necessary in the same way to remove a syphilitic miasm from a case that does not suggest syphilis at all by its symptoms.

Because the allopaths use mercury for syphilis is no reason why we should do so. I sometimes tell my students to first find out what the allopaths are doing for a case and then it will be safe to do just the opposite; it will be more successful. Surprise has been expressed that syphilis should be eradicated from the system by a single dose of anything. Why not a single dose. Let me ask how many doses of syphilis did the patient get? Is not a single dose of syphilis enough to last the patient for years, if not a life time, going through a regular course and apparently as vigorous in its action for a number of years as it was at first? Why then should we be surprised at the efficacy of the single dose? The best successes that you will get will be from the single dose of the homœopathically indicated remedy. Lachesis cured an undoubted syphilitic patient, yet in its provings it never produced syphilis in the healthy. With Hahnemann chamomilla cured fig warts, yet it never produced warts of any kind in its provings. Let us return to Hahnemann's principles and we will never regret it.—*The Hom. E., E. and Throat Jour.*

In acute arthritis from whatever cause—as a rule from specific infection—I believe there is no medication better locally than to use, say a pound of Epsom salts carefully spread on aseptic absorbent cotton, extending two inches above and below the joint, and over all a flannel roller bandage, and where necessary a plaster-paris cast to completely immobilize the joint. In a few hours the tissue around the incased joint will take on an active perspiration, and after the absorption of the salts by some means the pain will subside and the arthritis gradually disappear.—*Electric Med. Journal.*

PROGRESS.—"An article in a recent homœopathic publication voiced its author's belief that none but an unsuccessful practitioner who could not meet expenses ever sought public office. Is this the generally accepted view among homœopathic physicians to which those who are willing to do public service on professional or non-professional lines are afraid to run counter? The December issue of the *Journal of the Medical Society of New Jersey* prints the names of nine physicians who are mayors of New Jersey cities and towns, and only one is a homœopath. Is there any other homœopathic medical mayor in the whole United States? How many homœopathic physicians are members of the State or national legislature?"

Thus queries the *North American Journal of Homœopathy*, reminding us of a tea-pot tempest. But to set things right, we suggest that eight New Jersey homœopaths become allopaths. If they cannot do this conscientiously, they might become politicians instead. We would like to

indulge the *North American* and show how the physician could be a good mayor or legislator and a good homœopath at the same time, but it is impossible.

DRUG PROVING.—There is a state of mind too widespread in the profession that would relegate drug-proving to the laboratory basis. This state of mind obtains from the fact that disease and not health is kept in sight.

We maintain that no graduate in medicine will make a good physician until he is able to recognize and appreciate health values. He must be competent for this appreciation before he can be competent to judge morbid states.

The reason that our greatest remedies have held their unrivalled place in therapeutics is that these remedies were proved by great men. They were men who knew the real meaning of health. They kept ever in mind health standards. Therefore they could well discern any grade of departure from health.

Students of homœopathy must learn that drug-proving is a science. As such its mission and end is not to produce cases of nephritis, sarcoma or leprosy. The science of drug-proving must be conducted by scientists of broader view. It is not our arbitrarily-bestowed names of disorders that we want to live up to; it is rather to determine and record exactly the effect of a medicine on the whole organism or single individual provers.

JOHN HUTCHINSON.

CONFESSIONS OF A MOUTH BREATHER.—Francis B. Kellogg, M. D., Los Angeles, Cal.—It quickly becomes evident that the chief, if not the only cause of the habit was a relaxation of the muscles of the jaw, causing the mouth to drop open. And when one stops to consider, why shouldn't the masseter muscles relax in sleep? All the other voluntary muscles do. This consideration would certainly explain why the mouth breathing habit is so readily acquired and when once confirmed, so difficult to abandon. With the jaws separated, the disk becomes only partially effective and recourse was had to a bridle for the chin made of 1¼ inch webbing with a muslin sling. It was found to be almost impossible to draw the chin support up tight enough to prevent the jaw from dropping sufficiently to defeat the desired end, and when so drawn it was decidedly uncomfortable. Moreover, it was very easily displaced during sleep. Disk and bridle were faithfully tried, separately and in combination, and finally abandoned.

But one resource remained—plasters. This was tried without much success, for one reason I think, because of its simplicity.

The problem, however, has been solved for the writer, and he is no longer a mouth breather, to his great relief and comfort. No small part of the satisfaction of success, lies in the simplicity of the measure of prevention. A simple piece of surgeon's Z. O. plaster, one inch long and ¾ inch wide, is all the device required. The lips are closed tightly and rolled inward, so that only skin presents, and the plaster is applied across the mouth at the middle. When the lips relax from this forced closure, they are held in close approximation by the plaster, even if the jaws drop apart. It is not necessary to cover the entire mouth. By leaving the corners uncovered it is possible to talk, imperfectly but sufficiently for communication, and also to cough. Any other kind of plaster than surgeons is ineffective,

as it becomes moistened by the saliva and does not hold. It is well to use a little benzine in removing in the morning. If stripped off without help, after a time the skin becomes tender and sensitive, but by moistening the finger tip with benzine it can be rolled off without resistance. A little more benzine is used, if necessary, to remove any of the plaster material which may adhere to the lip and the benzine is then washed off with soap.

Since successfully coping with the mouth breathing habit, improvement in the condition of the larynx has been gratifying and significant.—*The Hom. E., E. and T. Jour.*

INTESTINAL AUTO-INTOXICATION—that's what it is. And when you come to think of it, it does mean something. You know lots of people whose life is embittered because they are not having a bowel movement daily and naturally. You know a very few people who have two quick, easy stools regularly every day and their lives are all sunshine. Fact, isn't it? And there you have the premise from which Metchnikoff draws quite logically his conclusions. Seems as if it would be better if there were only a hiatus where the colon is and excretions could make a quick exit, just as they are formed. That might offer a field for usefulness for the much studied and butchered appendix. Still, most everything grows old—trees, mountains, even birds (they have no large intestine), the wonderful "one hoss shay," all these things grow old and disintegrate, and they are not burdened or blessed with that extra (is it eight feet?) colon. There must be something else, and our good and great Metchnikoff must look farther—a second Ponce de Leon, seeking a supply for a fountain of perpetual youth. He has yet to prove that man is other than a complicated machine, plus a species of automatic internal system of repairs, and subject to the universal law of limited existence.

Drifting away from Metchnikoff and his theories, "Spectator," as the correspondent signs himself, acknowledges our ignorance of much concerned in the question of relative intellectual vigor in advancing years. Here is one of his thoughts: Take two men similar as to physique and social status. One takes life just as he finds it—does not contract vices, but eats, drinks, smokes, etc., lives just as happens, while the other is prudent in all his habits—yet the first man may live up into the eighties, while the second one ends up badly, and dies early. Why it is? Well, it may be that they, independently of their mode of life, have protoplasm rated at different values. If the first man has a protoplasmic value of 80 per cent., and the second, a value of 60 per cent., of course, the first one will last longer.

Then, too, a man's intellectual vigor in old age depends to a great extent on his cardiac vigor and the permeability of his cerebral senses. That it to say, that a heart unaffected by disease or toxicity and cerebral vessels similarly clear, are going to give good service. This is obvious.

There is another element to be considered, and that is use. We know men, so do you, who are over eighty, yet clear, concise, logical thinkers. Conversely, we know men, and so do you, who are under seventy, who cannot think logically or reason intelligently, and here we find the difference between mental activity and mental stagnation.—*Medical Century.*

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

EPILEPSY.—At a meeting of the Societe Francaise d' Homœopathic, on the 13th of November last, Dr. Chiron made another report of the case of epilepsy discussed at a previous sitting (October 12th, 1907). Among other things he stated that the patient had an excellent month of October, without the least fit. The menses reappeared normally on the 24th of October, but on the 6th of November, as the result of anger, she had that night a slight attack, with loss of consciousness, which lasted 3 or 4 minutes, and was followed by a profound sleep. This short fit was a repetition of the old attacks, but much less intense. Cramps in the left leg, ascending to the pelvis and left arm; oppression of the chest, &c. The following day she felt well and her sleep was sound. The cure was not complete, as a short paroxysm had supervened after seven months of freedom from the attack, and yet, this report is not without interest, for the improvement was obtained by a strictly homœopathic treatment.

In the discussion which followed, Dr. Jousset, Sr., asserted that he had treated numerous cases of epilepsy, a disease he considers disheartening and generally, very difficult, if not impossible to cure. Under the influence of treatment, the fits diminish and sometimes disappear for a few months, a year, or even two years, but to return again. He mentioned a case, which under the influence of *nux vomica*, 30, and *belladonna* 30, remained two years free of attacks. He thought this case cured, but the fits reappeared, first, one every year, then one every month, and no remedy proved efficacious to arrest them. He had read of many cures, but he believes this is hardly possible. However, he claims that homœopathy allows us to obtain marvellous results at certain periods of the disease, as when one attack occurs before the other is over. In such cases the best remedies are those of cerebral hemorrhage, namely: *Opium* and *belladonna*, low dilutions.

He remarks that for the disease per se, on the contrary, the best results are obtained by high dilutions, given at long intervals, for instance, every ten days.

He rapidly reviewed several drugs: *Opium*, *cuprum*, *belladonna*, *silicea*, *calcareo carb.*, and *causticum*, given by Bœninghausen as very important remedies, and whose pathogeneses only furnish a few symptoms which can be applied to epilepsy; and *Plumbum*, which on the other hand, has many epileptic symptoms, and yet does not cure the disease.

Finally, he particularly referred to *picrotoxin*, with which he claims to have cured a case.

He further asserted that *picrotoxin* produces in hot-blooded animals, genuine attacks of epilepsy. When the dose is large, these attacks approach each other more and more, and the animal dies, either from asphyxia during the convulsions, or from syncope during collapse. The attacks draw nearer and nearer, and become more and more intense, as when

death is impending, or appears further and further apart and the patient recovers.

He gave the following pathogenesis of picrotoxin: "During the attack, prostration, restlessness, tonic spasms of the forelegs, opisthotonos, general clonic convulsions, foam at the mouth, biting of the tongue, lips and tongue, and passage of urine and fecal matter. Later, coldness, adynamia, circulatory and respiratory failure, lowering of the temperature."

He related the action of *cocculus indicus*, as follows: Hahnemann mentions vertigo on rising from bed and partial convulsions with clenching of the thumb. A note of Gross, inserted in Hahnemann's *Materia Medica*, contains the following symptoms: The patient looks for some time at the same object, and then falls unconscious, with piercing cries, the limbs and the whole body shake convulsively, the upper limbs in extension and supination, foam at the mouth, involuntary urination, face and extremities covered with cold sweat, the features convulsed, and the tongue protruding. At the stage of convulsions, a sort of alienation supervenes. The patient rises again, keeps silent, grinds the teeth, puts out the tongue, becomes furious, tries to strike, and finally sighs and returns to himself. The attack lasted a quarter of an hour.

This note would be highly important if the symptoms had been determined on the healthy man by a dose of *cocculus indicus*. But being so, the result of an attack of epilepsy provoked by the remedy, it certainly loses a good share of its value.

Jousset thinks that if we take into consideration the experiment on animals, reported above, which show that picrotoxin has an undeniable epileptogenic action, we may conclude that this drug is indicated in epilepsy, especially when the attack occurs in the morning, at the moment the patient leaves the horizontal position, and is worse in the open air, and principally in the cold air, or by eating, smoking, and coffee.

He calls our attention to the fact that picrotoxin is commonly employed in the treatment of epilepsy by our allopathic confreres, who keep practicing homœopathy without knowing it, and he asked, can they cure epilepsy with this picrotoxin? And can we do the same with *cocculus indicus*?

Dr. Cartier took part in the discussion, stating that he did not believe there was in our *Materia Medica* a remedy truly curative of epilepsy. That that we can do, he said, is to retard the paroxysms. In his practice he generally employs two or three drugs which have always rendered good service: *Oenanthe crocata* tr. II drops daily in epileptics with frequently repeated attacks; *solanum carol* tr. which follows well *Oenanthe* and as a preventive of the attack, *kali bromatum* 3, especially in women who have periodical fits at the appearance of the menses. He reported the case of a young girl where the aura occurred an hour before the attack and in which the opportune administration of *kali bromatum* averted the fit.

The rest of the conference was taken up by Dr. Lion Simon and Dr. Boyer in extolling the value of *cocculus indicus* in sea-sickness.—*Revue Hom. Française*.

EDWARD FORNIAS, M. D.

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SPECIAL ACTION OF SULPHUR.

(Continued.)

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VEGETATIVE SYSTEM.

1. *Nutrition and its Disturbances.*—The complex human organism has been reduced to very simple elements—cells and *intercellular substances*. These two elements make up every tissue, the cells being more or less abundant according to metabolic needs (*tissue-formation, tissue-repair, etc.*). “The cell has been universally accepted as the seat of *nutrition* and *function*, just as *health* and *disease* have been considered as terms referring, not to the body as a whole, but to the cells of which it consists” (Green). And yet, with our present knowledge it would be better to add that the *nucleus* is the essential factor in the nutritive life of the cell. Ramon Cajal thus sums up the subject: “*The isolated nucleus, like the isolated protoplasm is incapable of living.*” According to Watase the nucleus and the protoplasm form a *simbiosis*, that is, a mutual association comparable with those established by the *algæ* and *lichen* or by the *hydra* and its chloroblasts. If, following Nussbaum, we cut an infusorium into fragments, only the part containing the nucleus will live and keep on repairing the loss. To be precise, the nucleated fragment will live for some time, but will

be incapable of repairing its lesion and build up organic matter; when its alimentary reserves are extinguished it will die.

Before entering upon the consideration of *drug and disease phenomena*, which is the main point here, it will be profitable, no doubt, to review more extensively our present knowledge of the *protoplasm*, of the *cell*, and of the *division of their physiological work* in the various functions of the body. It is a study which will clear up many points referring to *alterations of tissue and function*, as well as to the re-establishment of *healthy equilibrium*, for as it has been said, elsewhere, the *phenomena of life* have as a substratum the living matter or *protoplasm*, and the *protoplasm* according to Huxley is the physical base of life.

We are taught that the *animal organism* is, in its earliest embryonic state, a *single cell*, and that as development progresses it becomes an adherent mass of simple cells. In later stages various tissues become differentiated from each other by the cells becoming grouped in different ways, by variation in the shape of the cells, by disposition of intercellular matter between the cells, and by chemical changes in the living matter of the cells themselves. Thus, in some situations the cells are grouped into various *epithelial linings*; in others the cells become elongated and form *muscular fibres*; in *connective tissue* we have a preponderating amount of intercellular material which may become permeated with fibres, or be the seat of the deposition of calcareous salts, as in *bone*. Instances of *chemical changes* in the cells themselves are seen on the surface of the body, where the superficial layers of *epidermis* become horny—i. e., filled with a chemical substance called Keratin—in the *mucous salivary glands*, where the cells become filled with mucin, which they subsequently extrude, and in the *adipose tissue*, where they become filled with fat. In spite of these changes, the variety of which produces the great complexity of the adult organism, there are many cells, which still retain their primitive structure: notable among these are the *white corpuscles of the blood*. (Halliburton)

But to appreciate *nutrition and life*, well, we should also inquire into the *death of the cells*. The organism is like a town whose individuals are frequently replaced during the life of the community. There are elements whose life lasts only a few days, for instance, the *epithelial elements of the skin* and the cells of some *glands*; others prolong their life to several years,

the muscular, cartilaginous and connective tissues, but those that live the longest are the nerves, which subsist as long as the organism.

The degree of vulnerability, and, consequently, the greater or lesser facility for accidental death, varies with each tissue. The least oscillation of temperature, or of change in the nutritive medium, destroys the nervous and muscular cells; while certain epithelia, the leucocytes, the conjunctive corpuscles, etc.; they all endure with impunity well marked alteration of heat, and of the alimentary medium. Histologists take advantage of this power of resistance to observe these cellular elements in the living state, and surprise their physiological activities. (Cajal).

From the above, then, we have that an *organic cell* consists of a *mass of protoplasm*, but that in the higher animals the *nucleus* is the vital element. In the higher species, this mass of protoplasm splits into small bodies or *cellules*, derived all them, by *segmentation*, from a *primitive, unique cell*; hence all cells proceed from pre-existing cellular elements. They are formed by a detached portion of the *protoplasm*, with or without envelope (*cell-wall*), but containing the *nucleus*, which, we must repeat, is the essential agent of *cellular multiplication*. In the *cell*, therefore, we see nothing but the reduced image of a whole organism. The *cell*, in fact, is a physiological individuality, with its own life, and its own attributes, and the life of each one of the cells is nothing less than the result of the partial life of pre-existing elements of their class and nature. It is by this knowledge that we are enabled to understand, how a fragment of the organism, separated from its other parts, can continue to live for a certain length of time, as an independent being.

The student should bear in mind, however, that it is by repeated experiments and observations with the *plasmodia*, that we are in a position to appreciate how these *masses of protoplasm* exhibit all the vital manifestations of superior organisms: *Functions of relation* (irritability, contractibility, sensibility),—*functions of nutrition* (respiration, digestion, assimilation, excretion),—as well as the *function of reproduction*. What a marvelous and simple combination of elements, and yet how varied their special, individual attributes, all converging to the same end, which is *nutrition*, and consequently life.

Moreover, to build up an organism, the *cellular elements*

must not only multiply, but become differentiated and specialized in their functions, for it is in this way that a division of the physiological work is established.

An organism, no matter how complicated, can be reduced to the following divisions: An exterior cellular covering, called *ectoderma*, continuous with an interior lining, or *entoderma*, so as to limit an absolutely closed space, crammed with other cellular elements and constituting the *mesoderma*. In a more concrete manner, one can well assert that the *cutaneous layer and the intestinal epithelium*, with all the other derived epithelia, set bounds to all the different parts of the body, and between these two layers or linings is found the *mesodermic tissue*, that is to say, the bones, the muscles, the nerves, etc. As a result of all this we have the general principle: that whatever enters the organism to reach the living cell, and all what is expelled as useless by the same, must pass through an *epithelial membrane*. It follows then, that the *nutrition of the mesodermic tissues*, deeply situated in the system, cannot be accomplished unless the nutritive substances penetrating the epithelial linings can reach every cell, and unless the products of waste derived from cellular life be eliminated. These facts furnish the reason of the need of a vehicle, stirred up by a continuous motion. This vehicle is the *blood and lymph*, the motion is the *circulation*. (Hedon).

The *specialization of the cells* and the division of their physiological labor naturally entails the formation of organs with different functions, and that perfect harmony which should exist in the functional activity of all these organs. To secure all this, again, a regulator is needed, and this regulator is the *nervous system*. Therefore, we should always remember, the *influence of the nervous system upon nutrition*, as removal of a nervous stimulus checks or annuls the *nutritive exchange* and deprives functional activities of the afflux of blood which accompanies their action. It is in this manner, moreover, that the different cells of the organism, while each one of them constitutes a whole, are not functionally independent, but on the contrary are intimately connected through the intermediation of the blood, lymph and nervous system.

If the *physiology of the cell* comprises the *vital activity* and *vital energy* of the organism, then their possession naturally constitutes the first essential of life, the other cellular requirements being a sufficient supply of suitable food and appropriate

surrounding physical conditions. The result of this *cellular energy* means, nutritive, functional, and reproductive activities, and *food and excretion* become potent factors of *nutritive exchange and equilibrium*. In fact, *nutrition*, properly so called, consists in the exchange of substances established between an interior medium and the anatomical elements of the organism. The nutritive substances derived from our food are fixed in the tissues, which utilized them to grow and to perform their function. Moreover, the products of the *wear and tear* and their *waste* are rejected to be duly eliminated. Thus, a double operation of composition and decomposition is established in the interior of the body, with other words, the *intimate nutrition of the tissues* comprises two acts: one of organic construction, which is *assimilation*, the other of organic destruction, called *disassimilation*.

The *chemical processes* by which these transformations of matter are affected, do not only consist of oxidations, but of separations, hydrations, dehydrations and reductions (compounds into simples); and Barthelot has insisted that these reactions do not all take place with emission of heat (*exothermic reactions*), but that there are some of them that occur with absorption of heat (*endothermic reactions*). There is yet, however, a great deal of obscurity about the complex chemical processes which intercalate between the point of arrival and the point of departure of matter. True enough, we know well the substances that penetrate the organic laboratory, we know also what comes out of these works, but what really takes place in that centre of combustion, we only have commenced to gain some insight as to the nature of the processes that give rise to these changes.

Up to these days we hardly knew all that took place in the *chemism of digestion*. It seems to simply have shown combustion of the ingested substances, and that the final result was, a more or less active excretion of the products of oxidation, and a more or less active production of heat and vital energy. We have admitted that the absorbed substances undergo a series of changes before becoming an integrant part of the protoplasm, and that another series of changes takes place in the protoplasmic movements of regression towards the exterior. We have even boasted of our knowledge of *intermediary products*, but of the chain of facts connected with *nutrition* we only know well the first and the last links, the intermediate ones

being nearly unknown to us. We know, I repeat, what enters into the organism as food (*water, salts, carbo-hydrates, fats, and albuminoids*), and we know equally as well, what comes out of it (*water, salts, carbonic acid, and various completely oxidized nitrogenous products, such as urea and uric acid*), but it seems as if the *cellular chemistry* has commenced to come out of obscurity, and while as yet we can only assert positively that the *function of nutrition* essentially consists of *oxidations* (combustion of food with development of heat and force) we must hold ourselves prepared to accept other facts the future seems to have in store for (Hédon.)

And again, in regard to *development and growth*, we should also bear always in mind, that, while in the adult, *assimilation* and *disassimilation* are exactly balanced, this is not the case with an organism in a state of development and growth. In childhood *assimilation* necessarily outbalances *disassimilation*; that is, ingress must be greater than egress, for a child must not only repair the wear and tear, but progressively add tissue to its frame, until this attains its full unfolding and completion. We can easily establish a balance between the *ingesta* and *excreta* by a methodical dosing of them; and it is even possible to regulate the alimentation of an animal so that its weight may not show any perceptible variations. But, as it frequently happens, especially with the infant, if the food is not sufficient both in quantity or quality, or the *organic cells* fail to appropriate nutrient material, the inevitable result is *atrophy* and *starvation*, and it is under such predicament that the organism, to live, has to borrow its own materials of combustion for its own tissues.

We can plainly see, therefore, that when there is withdrawal or failure of the *nutritive function*, that is lack of *nutritive equilibrium; retrograde metamorphism* with all what this term implies, becomes manifested under many different aspects, and it is for this reason that I have so persistently intercalated in the text, those physiological, pathological, chemical, and clinical hints which are most likely to be of service in the interpretation of the phenomena of disease, and hence most likely to aid the beginner in the recognition and practical management of his cases, as well as in the proper selection of the remedy according to our methods. Indeed we are often prone to forget that for the maintenance of the body in a perfect state

, the *organic cells* must do the complex work of selection, appropriation, transformation, utilization and rejection; and these different operations constitute a harmonious whole, threatened by intemperance and other excesses, by imperfect alimentation, by exposure, by infection and other external influences;—that when *nutritive disharmony* is established, then is put upon the activity of the gland-cells, and especially upon the kidneys and liver, organs chiefly engaged in the secretion and elimination of waste-products;—that when it disagrees, or is not susceptible to be utilized as nutriment, the result is *imperfect nutrition*, which, when accentuated leads to *atrophy and degeneration*, for a tissue that is not nourished, wastes and wastes and finally succumbs;—that, even when *destructive metabolism* seems to have only suffered a halt, the cells appear often to be unable to convert matter into plasma, as evinced by the *wasting and loss of nerve-power*; but sometimes there are intermissions or alternatives of *waste and tissue repair*;—that at other times a retrograde process keeps on transforming nutritive material into waste-products, the accumulations of which become eventually a bulum of existing bacteria, as well as the active centre of infection and fermentation; and that it is in such cases that we observe those *catabolic changes* due to persistent auto-infection. These *nutritive changes* should be considered in relation to the influence of SULPHUR upon *destructive metabolism*. The genesis of the cell, its constitution, its physiology, and its chemical chemism, give us the explanation of many morbid conditions in which this drug has proved curative. We have to remember, however, that the only rational conception of the ability of SULPHUR to operate such wonderful *organic reactions* as we have seen, is, that there are means and ways in the cells themselves, which this drug is able to stir up in the most efficacious manner.

The vegetative functions: *digestion, absorption, assimilation, excretion, respiration, secretion*, including *generation*, form the complex of the *general nutrition*, and for the maintenance of health, they all must be performed with rhythm and pre-

It is unnecessary to treat more strenuously on a subject which should be constantly impressed on the mind of every physician, principally if he is to understand, as he should, the *causes and reactions of the system*, either when struggling to

recover the lost equilibrium of the vital functions, or, when under the curative influence of our remedies.

The disorders of nutrition proper recorded in the clinical history of SULPHUR can be conveniently tabulated as follows:

1. ATROPHY.—*Emaciation, marasmus, rickets, imperfect ossification, fontanelles open, etc.*

2. DEGENERATION (alteration of tissue).—*Osteomalacia, softening and curvature of bones, incurvation of bones, tubercular, scrofulous and syphilitic lesions, ulceration, proud flesh, caries, gangrene, necrosis—Colloid, fungoid, glandular and dermic degeneration, etc.*

3. CACHEXIAS.—*Malaria, cancer, anemia, leucamia, diabetes, scurvy, hydrargyrosis, plumbism.*

4. DEPRAVED STATES OF NUTRITION due to: *Tuberculosis, SCROFULOUS PSORA.—Herptism, sycosis, lymphatism, adenosis, furunculosis, pediculosis, syphilis, uricacidemia, gout, calculi, cystic tumors, etc.*

5. LOW STATE OF NUTRITION IN SUBACUTE DISEASES.—*Typhus, typhoid, yellow fever, cholera, dysentery, meningitis, etc.*

6. An important group of denutritive phenomena peculiar to SULPHUR is composed of: *Moles, warts, varices, hydrocele, aphtha, bleeding of gums, nose bleed, freckles and black pores on nose; dry, rough, and cracked lips; panaris, onychia, hang nail, dry hair, falling off; alopecia, obscuration of sight, amblyopia, dark points before the eyes, pannus, cataract, corneal ulcer, venous stasis. œdema, dropsical effusions, abortion, offensive sweats, offensive emanations from the body.*

7. More important than the preceding, are yet, those inflammatory manifestations of mucous and serous membranes and of the glands, namely: *Slow, inflammatory processes of the mucous membranes, chiefly with burning pains (blepharitis, nasitis, otorrhœa, tonsillitis, dysentery, blenorrhœa, vaginitis, leucorrhœa, etc.); congestion and redness in the borders of the mucous membranes; hemorrhoids (blind or bleeding, black blood, with bearing down); subacute and chronic inflammation of serous membranes (pleuritis, bursitis, etc.); induration and suppurative inflammation of the glands (pus fetid; pains burning and tearing).*

8. But the most characteristic syndrome of SULPHUR refers to the scalp and skin proper. It comprises: *Dry, flabby, or unhealthy skin; dry ulcers or scabs in the nose; herpes in the*

of the mouth; *tinea tarsi*; *eczematous eruption* in the face, on the head, or behind the ears, with sore pain and cracks; *rhagades*; *dandruff*; *crusta lactea*; roots of hair, falling out, painful to touch; *alopecia*; *mentagra*; *acne*, *navi*, *chilblains*; *ecchymosis*; *bed-sores*; *lupus vorax*; *ulcers* (*scrofulous*, *syphilitic*, *tuberculous*, *fungous*, *varicose*, *indolent*, *syphilitic*, *tuberculous*, *demetic*, *follicular*), usually with fetid discharge and burning pain; various *dermatoses* (*chronic*, *vesicular*, *pustular*, *scaly*, *scabby*), *herpetic*, *eczematous*, *urticarious*, *pruriginous*, attended by voluptuous itching and tingling, and burning soreness after scratching, especially in the folds of the skin, and in bed at night.

SYMPTOMATIC ANALYSIS.—The chief processes of impaired nutrition are *atrophy* and *degeneration*. It is in the *muscles* that *atrophy* is particularly characterized, and is commonly accompanied by *wasting* or *emaciation*, but when accompanied by general weakness of strength and failure of function, is known under the name of *marasmus* and *cachexia*. We have been taught that the *centre of nutrition of the muscles* is found in the large cells of the anterior horns of the cord, and that a lesion at this level is followed by *atrophy of the muscles and corresponding weakness*. This wasting may be bilateral, unilateral or localized in the muscles, according as the medullary alteration affects the whole, a single side, or a limited portion of the cord. Therefore, in the presence of *muscular atrophy*, we must endeavor to determine if the cause of the lesion is in the muscle, in the nerve, or in the cord. The task is often difficult, but in the symptoms and course of the disease we may find additional indications for a correct diagnosis. The case, of course, is different when the *atrophy* is due to *starvation* or *improper nutrition*, as in bottle-fed infants, where the *wasting*, or *emaciation*, still the *dehydration* is intense. *Marasmus* may occur in breast-fed infants when the milk of the mother is poor, or due to privation or overwork. *Extreme wasting* may, likewise, exist as a symptom of a wasting disease, the most common being *tuberculosis*.

Atrophy is often accompanied by *degeneration*, and may be described, remaining stationary, as in the face (*lesion of the facial nerve*); in the upper limb (*brachial plexus*); in the joints of the fingers (*lead-palsy*);—or it may be *progressive* and *increasing*, as in the so-called *general progressive atrophy*, etc.

Degeneration, on the other hand, is alteration of tissue from a higher to a lower form, whereas in *pure atrophy* the quantity of the tissues simply undergoes diminution. In the depraved state of nutrition called *marasmus*, we find combined *atrophy*, *degeneration*, and *dehydration* (withdrawal of water from the tissues). *Degeneration* is due to *perversion of nutrition* and is generally the result of diminished supply of blood; here either the chemistry of the cell is impaired by some internal cause or some inimical agent enters the circulation and probably attacks the protoplasm. Could it not be possible that some *catabolic fermentation*, *intense oxidation*, or *sulpho-conjugation*, are in part, responsible for the degenerative alterations seen in the *depraved states of nutrition*? Do we not know that the process of oxidation is more complicated when *Sulphur* is present, that *Sulphur*, like *Iron*, acts as a carrier of oxygen? Do we not find *Sulphur* in the chemical material of degenerated tissues, as in *granular*, *colloid*, and *fatty degenerations*? At the same rate, the tissues in degeneration suffer a chemical conversion which seems to explain the mischief wrought. From *pure protoplasm* they become *granular*, *fatty*, *hyaline*, or other sorts of chemical material.

When the change is into *fat* we call it *fatty degeneration*. *Caseation* is fatty degeneration with a want of fluid in the part. *Crude and yellow tubercles* are due to *caseation*, or fatty change of tubercular formation. In *old age* the protoplasm often becomes converted into fat, partly from diminished vitality and partly from defective supply of blood; *caseation and inflammation* act in the same way.

Mucoid degeneration is similar, but the resulting substance is mucin, which contains no *Sulphur*. Its causes are ill understood. The tissue here becomes soft and gelatinous. *New growth of sarcomatous kind and myxomata* are good examples. The inter-vertebral and costal *cartilages of the axis* may show this change. *Mucoid metamorphosis* is like the connective tissue of the embryo; the umbilical cord is composed chiefly of it.

Granular degeneration is the cloudy, swelling of solid parts, seen in *fevers*; it often heralds the *fatty changes*. Each minute granule is composed of proteids, contains *Sulphur*, and dissolves in acetic acid, but is not soluble in ether, like fat.

Colloid degeneration is something *mucoid*, but the resulting material is stiffer and more like glue. It also contains *Sulphur*.

not precipitated by acetic acid like *mucin*. A good example of it is *colloid cancer*. The actual cell elements are turned to *chondrin*, whereas in *mucoïd degeneration* the inter-cellular connective tissue is most commonly the source of the

lardaceous, amyloid or albuminoid degenerations, which are considered by some *infiltrations*, or deposits of abnormal material from the blood, consists of a *wax-like change* in the tissues, which become hyaline, transparent and homogeneous from the presence of *lardacein*. The change comes first in the small arteries of the spleen, liver, kidneys, and the intestines, and lymphatic glands. The organs afterwards become large, stiff and brittle, and weigh more than naturally. *Long continued suppuration* from *phthisis, struma, tuberculosis* and *syphilis*, are its clinical causes. It is often associated with other changes.

Many of the *phenomena of denutrition*, described under *atrophy*, are often of *trophic origin*, and not only seen in the organs and its annexes (*hair, nails*), but in the *mucous membrane, cellular tissue, muscles, bones and joints*.

Skin and subcutaneous tissues have their *centre of nutrition* in the spinal ganglia and in the posterior horns of the cord, and any trouble located in these parts or in the centripetal nerves is followed by certain *cutaneous alterations*,—as *herpes zoster*, an eruption chiefly due to exhaustion and physical debility, and which has been produced by the administration of *opium*;—*perforating ulcer* of the foot, which, like *herpes*, is a *little* of the *bones*, occurs in *locomotor ataxia*.

Lesions of the peripheral nerves give rise to the production of *ulcers*, followed by slow healing ulceration. The *skin* of the fingers, becomes *atrophic, shining and red* (like *leprosy* skin). *Alterations of the nails* are observed in *syringomyelia*; the *nails* become cyanosed, brittle, fissured, enlarged and thick, even they may fall off spontaneously, as in *leprosy*. The phalanges may remain deformed and threatened with *gangrene*.

Ulcers occur only on one side, or on the opposite side of the body to the site of the lesion, that is on the side of the *anesthesia*, when the lesion is upon an *unilateral medullary lesion*, but when the *lesion is diffused*, the neuropathic eschar is found in the centre of the sacral region; in *cerebral lesions*, however,

the sore occupies the centre of the buttock, opposite to lesion, but corresponding to the paralysis.

Another *trophic change of the skin* is *scleroderma*, a true cutaneous *sclerosis* where the parts become hard, rigid and thickened. It invades principally the face, the neck and upper limbs. Finally, it becomes a *genuine atrophy*; especially in the fingers, where the skin is extremely thin, but adheres always to the parts beneath.

Gangrene, both spontaneous (*observed in syringomyelia*) and symmetric of the extremities (*Raynaud's disease*), which properly speaking is not a cutaneous lesion, but more of a *vaso-motor trouble*, are important *trophic changes*.

The latter may pass off with *burning and tingling*, or result in *local necrosis* (finger tips), characterized by the formation of *blebs*, which burst leaving *superficial ulcers*. Sometimes *genuine symmetric gangrenous patches* are produced in the extremities, without there being any lesion of the heart or vessels, or any septicemia or traumatism. *Senile gangrene* and *dry gangrene* should be remembered; especially the latter which is a hard, shrivelled, and relatively dry form from deficient blood-supply.

When *trophic disorder* attacks the *hairy system* we sometimes observe a *hypertrophic state* in which the soft hairs fall out and disappear; and in certain *neuralgias* the pigment disappears and *canities* supervenes.

In the *cellular subcutaneous* tissue we have sometimes to contend with *localized œdema*, which occurs in the face (in case of *facial neuralgia*), or in the limbs. It is seen in *tuberculosis*, *syringomyelitis*, *exophthalmic goitre*, *acute angio-neurosis*, *œdema*, *blue œdema*, or *hysterical œdema*, which can be produced by suggestion.

In *myxœdema*, or *cachexia pachydermica*, which presents itself as a special tumefaction and starts at the face, and tends to the whole body, *the skin appears œdematous throughout*; the face is puffed, yellow, pale, and the skin is waxy and leaves no pitting upon pressure—what distinguishes this tumefaction from anasarca—and, besides, the lungs, the heart, and the urine remain normal.

In *Morvan's disease* (paresis of the upper extremities, with *analgesia and ulceration of the digits*), the *trophic changes* are characterized by *paronichia*, successively invading the fingers

both hands, *without pain*, and leaving behind especial deformities.

In the articulations the name of *nervous arthropaties* has been given to the *trophic changes*. They depend either on a peripheral nerve-lesion (*neuritis*), or on a lesion of the centres themselves. The *nervous arthropaties of central origin* are particularly observed in *locomotor ataxia*, but may also be found in *syringomyelitis*, *compression of the cord* (Pott's disease), and in *acute and chronic myelitis*, etc.

In the bones, the chief alteration is *fragility*, which in *tabes* explains the frequent fractures of the affection.

We do not know whether *trophic nerve-centres* and nerve-centres exist as separate structures,—very probably they do—of their potential existence, as we have seen above, there can be no doubt. *Lesions of nerves, cord, and brain* have the power of causing *disturbances of nutrition*, in any tissue of the body. In fact, all *nervous diseases affect nutrition* in a great variety of ways; it depends chiefly upon the accompanying *nutritive disturbances*, *fever*, *decubitus*, and the various *disturbances of individual internal organs*.

Whatever field we invade in our analysis, we will always be confronted with *diseased cells and nerve-fibres*; and, as we saw that the maintenance of the *nutrition of a nerve-fibre* depends on the nerve cell of which it is a branch, we have the explanation why a section of a nerve causes degeneration of all fibres which are separated from their nerve cells. The *multipolar cells* of the spinal cord are the *sources of nutrition of the motor nerve-fibres*, therefore section of the anterior root leads to *degeneration* of the motor fibres of a mixed nerve trunk, while section of the posterior root causes *degeneration of the nerve-fibres ascending into the cord* above the section, because the ganglion on the posterior nerve root guides the nutrition. The connective tissues of the nerves overgrow and produce *sclerosis*, and the same changes occur in the *spinal nerve-fibre* in which *descending and ascending degenerations* may be noted according to the tracks involved. We should also bear in mind that nerve fibres always degenerate in the same direction as they conduct nervous impulses.

In *peripheral neuritis*, *infantile palsy*, and *progressive muscular atrophy* we can notice that as the *motor nerves or nerve-centres* are destroyed or degenerated, the muscles innervated by them waste. *Inflammation of the joints*, generally of the sub-

acute and chronic character, has been also observed in *peripheral neuritis, locomotor-ataxia and in brain lesion.*

To see in the *cutaneous surfaces, sweating, hyperæmia, œdema, herpetic vesicles, zona, altered pigmentation, gangrene, bed-sores, etc.,* and not to know whether they are of *trophic origin or not,* is discreditable; and the same may be said, when we notice the *hair grow rapidly, not grow at all, or fall, or become gray;* or if the *nails do crack and fall out, and even ulcerate,* without knowing the cause. Indeed, no function of the body appears to be beyond the reach of the benign or malignant influence of the nervous system. *Indigestion* may result from mental anxiety, *gray hair* from fright, *jaundice* from anger or emotional shock. The influence of a *cheerful state of the mind* in aiding recovery from disease affords an example of the beneficent influence of healthy nerves.

Even the *temperature of the body* is clearly under the *control of the central nervous system.* This governing office makes use of various nerves including the *vaso-motor,* and other nerves regulating the *metabolism of the body.* There is a certain *production of heat* and a certain *expenditure of the same,* and the proper balance between these two functions is the function of the *nervous mechanism* to maintain, but when there is increased production or diminished expenditure the result is *fever,* which necessarily causes, or is associated with changes in the various systems of the body.

The functions of an organ are really the functions of the cells of which it is composed, so any abnormal performance of function by one or more organs or tissues is an indication of *cellular disorder,* which must be combated as such. The abnormality should also be individualized, for the *impairment of the metabolism of the cell,* brings about a great number of *morbid processes,* of different character, with a proportionate diminution of vital energy, and other manifestations of disease, objective and subjective, which demand our most careful consideration. It is through repeated observations that we can secure certain *impressions of single forms of disease,* by means of which, on seeing similar cases, we, at once, can surmise their symptomatic counterpart. These impressions or habits, are a composite of nutrition, complexion, appearance, position, gait, speech, etc. In fact, it is by our close attention to disease that we detect those *obscure symptoms,* found in certain morbid processes, called *negative* by our opponents, but which are of great

due to us, for the individualization of *similars* and the selection of the *similimum*.

It is not many years since we have been able to measure somewhat the intensity of *organic nutrition*, but *denutrition* always translates itself by *local* and *general phenomena* which have been and are our constant guides in the treatment of disease. Even without an exact knowledge of the composition of blood, of the dosage of hemoglobin, of the respiratory capacity of the blood, of the quantity of the urea excreted, of the osmotic indexes, of the rôle of the internal secretions, etc., we do not need to become passive spectators of disease-evolution, for we treat our cases symptomatically.

In the next division of my analytic work I will consider with attention and care "*Secretion and its Disorders*," a subject which has become of late the field of earnest investigation, at least, in relation with the functions of the *ductless glands* and the physiological importance of the *internal secretions*.

DIGITALIS THERAPEUTICS.

BY E. M. HOWARD, B. S., M. D., CAMDEN, N. J.

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(Read before the Philadelphia County Homœopathic Medical Society.)

Is the ordinary use of this drug for heart stimulation an example of pure drug mechanics, or is its application explainable in accordance with the law of similars?

For the purpose of this discussion I will assume the following data as having been established.

Digitalis is a very complex drug, and concerning its pharmaceutical preparations there has been considerable confusion. Its clinical field of action has been tolerably well outlined and agreed upon, but in some conditions there is still great diversity of opinion as to its utility.

Some of this diversity of opinion arises from differences in the effects of its various pharmaceutical products.

Digitalis contains at least four active principles, three of which, digitoxin, digitalin and digitalein, stimulate the heart muscle and contract the peripheral arterioles, while the other, ouabain, has a diametrically opposite effect, depressing the heart, dilating the blood vessels and is a diuretic.

The watery preparation, infusum, contains all the digitonin and digitalein with a minor amount of the other heart stimulants, and is clinically most useful in dropsys.

The tinctures and fluid extracts (alcoholic solutions) contain all of these principles, with a preponderance of the heart stimulant effect.

The fat free tincture seems to be the best for general use, since it has little nauseating effect and holding all the glucosides in water solution is quicker in action.

The trade preparations, digitalin and digitalone may be used hypodermically, but are not simple substances, being a mixture of the different glucosides, and their exact composition and sphere of use is not yet determined.

Animal experiments, upon which the mechanical effects of the drug are based, have been made chiefly with the alcoholic solutions, and it is of these that we speak ordinarily, when we refer to digitalis action.

By experiment it has been determined that the most prominent action of digitalis is to stimulate the contracting power of unstripped muscular tissue fibres. In this way it increases the heart's power as a pump. Unfortunately, the same action contracts the arteries and arterioles, and so diminishes the carrying capacity of the arterial system, so that arterial pressure tends to rise.

Digitalis also stimulates the nerve roots of the vagus, which results in a marked slowing of the heart's rhythm. This effect gives time for the ventricles to fill more completely, and so ensures a larger quantity of blood being thrown into the arteries at each contraction.

The chief mechanical effects of digitalis are, therefore, to force the heart, to send a larger quantity of blood, with greater power into an arterial system of diminished calibre (greater blood pressure).

Now, if it were not for this increasing arterial tension, and if the drug did not also have an effect upon other medullary centres producing nausea and other disturbing conditions, digitalis power might perhaps be as accurately gauged and as precisely used for weakened hearts, as any mechanical appliance for the repair of a mechanical pump.

In passing we stop to note that we have a drug, strophantus, which appears to have the same stimulative effects as digitalis, but without the production of increased arterial pressure.

re; and this would seem to make it an ideal heart stimulant, mechanically. But while there is considerable clinical evidence in its favor, in cases where increased arterial pressure would be objectionable, it has never obtained any great or universal prominence as a heart stimulant.

Considering the heart now as a pumping machine, it has been very well agreed upon, when, where and how digitalis may be used to increase its mechanical efficiency. A similar mode of reasoning will, likewise, indicate what is perhaps more important, in what conditions it should *not* be used.

I am not unmindful, however, that some writers (Sollman, etc.) maintain that inasmuch as the circulatory apparatus is a closed tube, increased force must always be beneficial when the heart is weakened from any cause whatsoever, no matter what portion of the current is interfered with.

Adopting the more commonly accepted ideas of its action, we may state that it is mechanically contra-indicated in *stenotic* conditions. Narrowed orifices forbid the attempt to force the liquid through them. Clinical experience shows that digitalis must be used with great care in *aortic* stenosis and that if such condition is combined with mitral insufficiency, it is absolutely useless.

In *mitral* stenosis, however, opinions vary greatly as to its value, but it is generally accepted that here also it must be used with caution and in moderate doses, and that what benefits it produces are due to its right ventricular effect in relieving oedema and passive congestion of the abdominal viscera.

In valvular *insufficiency*, digitalis should theoretically be mechanically efficient. In *aortic* regurgitation there are, however, grave objections to its use. Some claim that as a compensating ventricular hypertrophy always results, stimulation is not needed until compensation fails when it is too late to attempt stimulation because myocardial degeneration is too far advanced. It is also claimed that the prolonged diastole gives too much time for backward flow into the dilating ventricle. In spite of this, however, digitalis is sometimes useful in such cases.

In *mitral* regurgitation digitalis has won its greatest laurels. Clinical experience is here in accordance with its plain mechanical indications, and the largest doses are well borne. There are, however, some cases where the backward flow is so great that it cannot be safely used, but this must be determined by trial.

Digitalis is contraindicated in cases of arterio-sclerosis because of the danger of rupture and cerebral hemorrhage.

It is mechanically forbidden in all diseases characterized by high arterial tension (chronic Brights). There is also great danger in its use in myocardial degeneration either fatty or septic, since it is always uncertain how much healthy muscular fibre remains to be stimulated. And yet, and yet in all these conditions it has sometimes been used with benefit, when given in small (moderate) doses and under frequent observation.

On the other hand, how often it happens that when digitalis seems to be best indicated mechanically, our application of this or any other heart stimulant has been disappointing.

All of this seems to show that the mechanical indications for the use of digitalis are not sufficiently reliable for absolutely accurate scientific work. Attractive and reasonable as the application of mechanical principles seems, and brilliant as has been its results in some heart conditions, such indications are not always to be depended upon and frequently lead to disaster. In fact, I am afraid we can never hope to apply mechanical laws to the repair of the human pump with scientific accuracy, because we are dealing with a vital organism whose processes are too intricate to be followed to their ultimate end. They are now, and probably always will remain, beyond the ken of human mind.

These considerations have led me to look for some better guide to the treatment of heart conditions, and I am now prepared to venture the assertion that the law of similars will be found the key to unlock all these mysteries, and I will make the claim that all the success of this drug in heart complications has been in line with a correct interpretation of the law of similars, and should be so claimed by the homœopathic school.

Before you condemn my proposition, listen while I recall to your minds certain accepted physiological facts, and offer my arguments.

All observers are agreed that when digitalis, in sufficient dose is applied to healthy living organisms, results will follow in the following order: First, as before stated, the heart beats will be greatly increased in strength and made much slower, the pulse will become strong and tense. There is an increased amount, and pressure, of blood in all parts of the body, and there is produced an array of symptoms in the brain,

s, stomach, kidneys and other remote parts, based mainly, not altogether, upon these circulatory disturbances.

Following this stage there comes a period when the heart's action grows more rapid and weaker, symptoms of fatigue, though the arterial tension still remains high, and during this period there appear symptoms of another variety and grade in remote organs of the body.

Finally, by a gradual change,—there is no distinct line of demarcation,—there comes a time when the heart's action becomes very weak, the pulse more rapid and irregular, the blood pressure rapidly falls, until the oncoming paralysis ends the struggle with the heart at a diastolic standstill. During this period also there will be developed a vast variety of symptoms in all parts of the body, but naturally of a very different type from those of the other periods.

What right have we, except for convenience of study, to divide these effects into groups and stages? Do they not form a continuous, logical, characteristic drug picture?

Drug action is not a mass of unintelligible and opposing symptoms of separate and distinct relationships. It is one continuous chain of physiological effects, each dependent upon and closely interlinked with each other, and all traceable to the morbid influence.

The fact, that we can carry the pathological changes further with some drugs than with others, does not change the relationships. The weak irregular heart is just as truly a physiological effect of digitalis, as is the slow strong heart. It is the natural outcome of a sufficiently large dose to carry the physiological disturbance to the bitter end, but it is no less truly a digitalis action.

Now, if I am right, we may take any stage of this symptom picture as the basis for the homœopathic application of the drug. When we find a patient with a slow heart, high tension, excitable brain, etc., we would all agree that digitalis would be a homœopathic similar, and we would expect results with small doses. Is it any less reasonable to expect it still to be indicated in a disease which has progressed towards the threatened paralysis of its last stages? Since the digitalis action continues on until it produces this same stage, I fail to see why it may not be equally well indicated in any stage of this symptom development, under the same law. If I am right, when we give digitalis to diseased persons with weak

irregular hearts, we are acting strictly in the domain of the law of similars, because it is true and cannot be disputed that digitalis can and does produce, in large doses, and in its last stages, exactly this type of trouble.

This is not a new idea. That able and scientific observer, the late Carol Dunham, did not believe in any distinction as to the availability of all drug symptoms and of any stage.

On page 129, "Science of Therapeutics," he says regarding opposing symptoms: "No sound practical distinction can be drawn between them based upon assumed difference in nature, by virtue of which they can be designated respectively as primary and secondary, and second, that symptoms apparently opposed occurring in a drug proving, are equally available as guides in the selection of remedies."

We do not divide the effects of most drugs into so-called primary and secondary action. It is simply an impossibility. Much has been written on this question, but it is significant that so far there has never been a satisfactory definition given of primary and secondary drug effects. We cannot so divide the action of bryonia, rhus tox, nux vom., veratrum, or sulphur, all of which have opposite effect. You will note that such distinctions are made only of drugs much used upon alleged mechanical principles. Because mechanical therapy uses a part only of the physiological effects, the more prominent, and wants to ignore all others, we have felt that some such divisions should be made. Blinded by the rationalistic mechanical explanations offered, we have failed to recognize the availability of the entire drug picture for the cure of disease, and appreciate its homœopathic relationship. The homœopathic school has been slow to claim for its therapeutic law much that belongs to it, and suffers much thereby.

Greatest of all her mistakes has been her attitude towards cinchona and its alkaloid. Not so long ago it would nearly cost a man his membership in a homœopathic medical society, to acknowledge that he used this drug in material doses for malarial fever. There are many of our physicians to-day who regard such use as beyond the sphere of homœopathy. What a terrible blunder! Shades of Hahnemann! To think that the drug whose acknowledged usefulness in his day, was, according to Hughes, "the one bright spot in the medical practice of that age," and the drug whose investigation, because it did cure malarial fever, gave Hahnemann his first glimpse of the law

...],
...similar, should be condemned and tabooed by his followers.
...is the one great blot on the recent history of homœopathy.
...cure of malarial fever by this drug in material doses, when
...ated, is the foundation on which the entire fabric of
...eopathy has been built. Beware how you trifle with it.
...u would know what such leads to, read Wanstall's article
...e March HAHNEMANNIAN.

...onsider also the attitude of our school towards mercury.
...is a drug that produces such a similarity to the first stages
...philis, that the old school authorities warn against its use
...re a positive diagnosis has been made, because it presents
...perfect a picture, that otherwise its symptoms may be mis-
...a for the disease and a wrong diagnosis may be accepted,
...yet its use by our school has been condemned by some as
...mœopathic. No wonder the other school doubts our sin-

...7.
...hen there is the iodide of potassium, (oh! I am treading on
...erous ground now), whose symptomatology is an accurate
...re of some of the later stages of syphilis, yet the hom-
...thic school has not dared to claim its cures, because, for-
..., it must be used in such large doses.

...re! there's the rub. The fact is, the application of the
...eopathic law of cure has led to such a remarkable diminu-
...of the doses formerly used, that both the old and new
...l have confused the idea of infinitesimal dosage with that
...e law of cure. Wonderful as has been the discovery of
...power of the infinitesimal dose, the size of the dose has
...ng to do with the law of similars. Hahnemann himself
...ested only that we should use the smallest quantity of the
...that will produce the cure, without causing anything but
...lightest aggravation. Experience must determine how

...is this quibble over dosage that stands in the way of the
...rsal acceptance of the law of similars, and it is this same
...ge question that stands in the way of your acceptance of
...resent proposition, that the well known good effects of
...alis are better explained in accordance with the law of
...ars, notwithstanding its formidable mechanical claim.

...at staunch old homœopath, Constantine Hering, has laid
...the only known rule that can guide our dosage, and in it
...ay find a solution of the difficulties involved in this view
...igitalis therapeutics. He observes that the size of the

dose must bear a proportionate correspondence to that required to produce the exact stage of the disease being treated.

Applying this to digitalis symptomatology, you will observe that it would require a relatively small dose to cure a disease having the symptoms of the so-called primary digitalis effects, the slow and powerful heart, etc., but that as it requires large doses to produce the paralytic conditions of the last stages of the picture, it is necessary to use proportionately large doses to benefit such conditions in the sick. The exact dose must ever be a matter of experiment and experience. There is a law of dosage, therefore growing out of the law of similars, Wanstall to the contrary, notwithstanding.

But I beg of you not to twist this paper into any discussion of the dosage question. The point I am trying to make, and the question I want to discuss, is the possibility of the acknowledged beneficial effects of digitalis being in line with the law of similars. I believe this to be so, and it seems to me I have proved the similarity of the symptom picture.

I have, however, another argument to offer based upon the *order of development* of those symptoms, a subject much neglected by many of us, but of great importance. I do not believe that true homœopathic prescribing is any system of mere symptom matching. Only last month this Society listened to a scholarly paper by Dr. Stuart Close, of New York, which presented this matter in a most attractive and exhaustive manner. But it was a plea for a scientific system of symptom matching. It is based entirely upon a study of the repertory. Its result is to point out that drug which after careful analysis of the case, produces numerically the most of its true characteristics. The fault of such a system is that it utterly ignores the natural history, or sequence in development of the symptomatology. It is a study of disjointed symptoms. It seems to me that every true homœopathic prescription must follow this sequence. That the pathological development in the patient, the sequence of the symptoms, must be similar to that produced by the drug. That the order of development must be equally, if not more, important than the number of similar symptoms.

Viewed in this light we have in digitalis symptomatology a perfect similar to those broken compensations where this drug has been found so pre-eminently successful. In both sequences we have the history of a heart whose muscles have

forced by overwork until finally they are fatigued and out, and its stoppage is threatened by an oncoming paroxysm. I claim, therefore, that it is in accordance with the law of similars to attack this symptom complex with large doses of digitalis which has the same sequence of symptom development. The reason for some of our non-successes will be found in our failure to consider these sequences and to study the drugs, which while producing a similar sequence, possess differentiating features which might and should be distinguished by the process alluded to above as symptom matching. Along these lines we must study if we are to improve our results in heart cases.

Finally, let me observe that digitalis therapeutics occupies a different position from the ordinary use of other drugs for mechanical purposes. Such results are obtained by the action of drugs upon perfectly healthy tissues and organs. When we desire to dilate the pupil of the eye, either for purposes of examination or to pull the iris out of the way of inflammatory products, we use mydriatics. These drugs bear no relation to any diseased condition. They are used upon perfectly healthy tissue. The emetics, purgatives, anæsthetics, hypnotics, etc., are all supposed to act upon healthy organs for the purpose of relieving mechanically other and possibly remote organs.

In these heart cases where digitalis is used we always have a diseased organ to deal with, and we are applying a drug to a diseased heart in order to cure it. Why then does it not follow under the law of similars, the only known law of cure, rather than the laws of mechanics?

It may be observed that while it is measurably safe to exert a great physiological force upon healthy organs and tissues, when such action is under reasonable control, it may be dangerous to apply such force to diseased organs, whose reaction cannot always be estimated.

In conclusion let me say, that I do not regard this discussion as mere pastime devoid of utility. Some may ask what is the value of these distinctions. What difference does it make any-whether such action is homœopathic or mechanical, so long as we get the results?

In reply, much everywhere. We have shown that our knowledge of heart stimulation is limited. We have apparently got no farther as is possible with mechanical principles as a guide. If

there is a better way we ought to develop it. If such action really does come within the domain, of our therapeutic law, we ought to claim it, not only because of the prestige that would come to us as a school, but far more because of the opportunity to perfect our methods and improve our results which we may reasonably hope to do, through the differential studies and individualizations made possible by the application of the law of similars.

THE MANAGEMENT OF THE MENOPAUSE.

BY NORMAN S. BETTS, M. D., PHILADELPHIA, PA.

(Read before the Philadelphia Society for Clinical Research.)

ONE hundred and twenty-eight years ago (in 1779), Doctor John Fothergill, in a paper before the Medical Society of London, said: "The various and absurd opinions relative to the ceasing of the menstrual discharge, and its consequences, propagated through successive ages, have tended to embitter the hours of many a sensible woman. . . . Some practitioners, in other respects able and judicious, if they have not favored these erroneous and terrifying notions, seem not to have endeavored to correct them with the diligence and humanity which an object like this requires."

The "various and absurd opinions" to which Dr. Fothergill referred were doubtless those which at that time attributed to the normal menstrual discharges certain defiling, more or less mysterious or even magical influences. There existed a popular belief that the menses consisted of a foul humor, the retention of which was prejudicial to health as well as being injurious to all persons or objects with which it came in contact.

The symptoms observed in women about the change of life were accordingly attributed to the ill effects of the retained poisons to which the body had not yet become accustomed.

With a more general understanding of the character of the menstrual function there followed a swing of the pendulum in the other direction and everything from slight flushes to profuse flooding or profound nervous disorders was considered by many "only the change of life," and therefore unavoidable.

It is only in rather recent times that the rational mid-point view has been reached, and every medical student now has im-

and upon him the imperative necessity for the careful examination and treatment of all cases which exhibit protracted severe symptoms at this period.

In the following paper I desire to consider only some of the prominent features of the period, with a view to present some points in the management of these cases with which we are all constantly coming in contact.

We are frequently impressed with the multiform and bizarre characters of some of the manifestations of the climacteric neurosis.

Old disorders which have been only intermittent or encephalopathic for years now take on a new lease of life, as do the various organic and neurological ailments to which the woman has before been susceptible find a more ready field for their development. In other words, during the one to five years following the beginning of menstrual cessation the pregnability of the woman to harmful external influences, both psychical and physical, is frequently increased. Neuralgias become more frequent and intractable; digestive disturbances, such as constipation, grow more acute and less easily counteracted—little domestic cares and responsibilities which have scarcely weighed upon the patient at all suddenly assume the aspect of almost insupportable hardships.

With these facts in mind it frequently becomes our duty to regulate the lives of such patients that temporarily at least the wear and stress of their everyday lives may be abated; to give them hours of rest, more help in the conduct of their household and business affairs as well as vigilance in the attention to abnormal pelvic symptoms.

The boundary line between the more severe nervous disorder and insanity is often so nearly indistinct that watchfulness should never be neglected where nervous irritability or melancholic depression is pronounced. The alterations in disposition at this time are sometimes very marked—a previously cheerful, happy woman begins to lose interest in her daily life, imagines that husband or children no longer care for her, is abnormally conscious of her imperfections, or is apprehensive of the existence or imminence of some serious malady. Often do we see this sort of thing progress to delusional insanity or paranoia. During the last year I have seen two such cases.

We do not wish to infer that every woman who approaches the climacteric period should be advised to lapse into a life of indolence.

lence or to renounce social or household duties which may have been the source of much of her pleasure. Indeed this is frequently the worst possible advice. Many, perhaps the majority of climacteric women are benefited by an active life which will take their thoughts as much as possible from themselves. I mean that each case should be individualized and every irritating or depressing influence as far as possible removed.

The well known tendency to corpulency as the menopause approaches may be the cause of considerable discomfort or even permanent harm, especially if the increase in adipose has been rapid. I have just instituted a course of massage and passive resisted movements in a case of this kind where there is evidence of some loss of muscular heart tone.

Besides massage, hydrotherapy, electricity, and mild forms of gymnastics may be useful in selected cases.

Aside from local pelvic symptoms the most frequent disturbances which have come under my observation and could be classed as distinctly climacteric have been vaso motor, gastrointestinal and neuralgic.

Scarcely a woman passes the change without at least some vaso motor disorders, ordinarily evidenced by the common flushes or "flashes" of heat. Fortunately many escape with no more than a few slight attacks of this phenomenon and would not know that the end of their active sexual life had arrived were it not for the cessation of the menstrual flow; indeed there is no doubt that the general condition of many women is even improved at and following the menopause. We have all seen chronic ailments which have beset patients for years disappear at this time, never to return.

The heat flashes are frequently accompanied by localized or general sweating, vertigo, headache, and cardiac palpitation. A feeling of extreme prostration with a sensation as though about to faint is sometimes observed. This symptom is usually much benefited by moschus. I wish to recommend this remedy to those who have not already used it, for this feeling of complete nervous prostration with tendency to easy fainting. I use the 3x potency.

The transitory hyperemias have been most often benefited by sulphuric acid, belladonna, aconite, sulphur and sanguinaria canadensis. Very good results have been obtained from sulphuric acid 30x in nervous women where the flushes are attended with much subjective trembling, sweating and a feeling

everything must be done in a hurry. Gastralgia is an ad-
l indication. I prefer belladonna and sulphur in the
potencies for their well known congestive symptoms.
adonna 30th relieved a severe climacteric headache in
my patients almost invariably within fifteen minutes.
has not happened once but a dozen times and helps to
tract the frequent discouragements encountered in the
ent of these cases. The same patient has been much
by moschus for the symptoms above mentioned.
have had rather good results from sanguinaria in some
of characteristic sick headache. I have always used the
potencies.

gastro intestinal symptom most often observed has
gastralgia. Aggravated constipation or diarrhoea, though
d not less in frequency was not so often noted. Meteor-
often marked.

grand remedy for gastric disorders has been ignatia,
bed chiefly on the general symptoms. A long list of
remedies follow closely but best results have been ob-
from china, anacardium, sanguinaria, iris, nux moschata
foetida. It is certainly unnecessary to speak of the im-
ce of excluding organic or malignant disease of the
h at this time.

article of diet which I have found useful in some cases is

As you may know, this product is sold in three de-
of fermentation and offers a convenient mode of regulat-
ght bowel disorders. No. 1 being slightly laxative, No.
ral, and No. 3 somewhat constipating.

remedy which has been most frequently useful in my
for intestinal atony is lycopodium 30x.

ase which came to me with a functional gastric disorder,
rated since the onset of the menopause, is interesting for
culiar mental symptom which she related. For the last
onths she noted an increasing tendency to count every-
which occupied her attention. If sewing she could not
unting every stitch, riding in a car every trolley pole, or
ight was counted, or if walking she recorded the exact
r of steps taken to a block, etc. She assured me that
and it absolutely impossible to stop the practice though
ried her extremely and aggravated her nervousness.

local pelvic changes which occur at the menopause are
ly atrophic in nature. The uterine wall decreases in

thickness, the cervix becomes shorter and thinner and the glands of the endometrium grow smaller and less numerous. At times the internal os is entirely obliterated, a condition which sometimes results in reflex pains such as gastralgia or other neuralgias which are immediately cured by re-establishing the outlet.

The ovarian atrophic changes are said to occur somewhat later than those in the uterus, and consist in an increased production of connective tissue which takes the place of the degenerated follicles.

Late in the menopause the epithelium entirely disappears from the surface of the ovaries.

I present this evening two specimens of calcification of the ovary removed from women who had passed the change. This is a rather uncommon form of degeneration and the specimens are of interest mainly on that account.

I would like to lay stress upon the value of putting the woman at this time, when her health is good, into the best possible physical condition. The period resembles the age of puberty in the value of having a good start. A little tendency to prolapsus from slight rectocoel or cystocoel, if repaired now will often procure for the patient for the rest of her life entire relief from symptoms which would steadily be aggravated and with the complications of increasing age make operation more difficult or even inadvisable.

There has been a rather generally acceptable fallacy that fibroid tumors of the uterus have a tendency to decrease in size or disappear following the menopause. That this does at times occur is undisputed but certainly not with sufficient frequency to make it the rule. A woman of 35 years, for example, who is advised to wait for the menopause, rather than be operated for a growing fibroid which is producing symptoms has before her perhaps 15 or 20 years of partial invalidism during which she is exposed to the ill effects of possible hemorrhages, anemia, malignant degeneration, local attacks of peritonitis, pressure effects upon the bladder, kidneys, intestines and iliac veins beside the myocardial degeneration which so frequently results from these tumors.

Do not advise waiting for the menopause to reduce large myomata unless the change is near, and even then let the patient understand that there may be no resulting arrest of growth.

A symptom which has probably attracted more attention than any other—both in professional and lay minds, is hemorrhage. All sorts of ideas exist concerning the quantity and frequency of bleeding at the menopause. We know that as a matter of fact metrorrhagia has no place among the normal phenomena of the climaxis—that the periodic flows should cease as they began, or if not abruptly, at least with a progressive decrease in the amount of blood lost.

John Milton Duff questioned 482 healthy women who were over 52 years of age, and found that only 39, or 8.2 per cent., gave a history of anything like hemorrhage at the menopause.

A careful examination is indicated where the flow at this time becomes more profuse or increases in frequency and do not forget that a normal cervix does not necessarily mean the absence of cancer. In the treatment of these cases determine first the normal characters of the flow for the individual, as to quantity, duration, and lengths of interval—comparing these past records with present symptoms. A comparison of number of napkins soiled is a convenient method of estimating the quantity of blood lost. Recurrence of the flow after several months' cessation is a suspicious symptom.

An existing abnormality can frequently be traced back to a complicated labor, abnormal puerperium, miscarriage, or other pelvic mishap.

Pain, odorous and watery discharge in addition to hemorrhage are grave danger signals.

A variety of climacteric hemorrhage in which none of the usual etiologic factors can be discovered has recently been described by Ansbach, of this city, who has given it the name metrorrhagia myopathica. This he described as "a form of uterine hemorrhage which is independent of the usual causes of metrorrhagia and is produced by a pathologic condition of the uterine muscle."

As I have discussed more elaborately in a recent paper the muscle fibres of the uterus as well as those in the arterial walls themselves have an important function in controlling the calibre of the uterine vessels and, by their contraction, in regulating the circulation through the organ.

A so-called muscular insufficiency may be produced by various causes, the most common being the growth of connective tissue at the expense of the muscle fibres, such as occurs in old age.

The normal senile changes differ, however, from those which result in bleeding about the menopause in the following particulars: Following the climaxis there normally occurs an atrophy of the uterine muscle fibres which are replaced by connective tissue. The vessel changes are in the nature of an obliterating arteritis with great encroachment of the lumen by proliferation from the intima. The other coats are also thickened and in many areas the arteries entirely cease to functionate, nothing remaining but a fibrous cord.

In metrorrhagia myopathica, however, the elastic tissue of the media and adventitia is chiefly affected, that of the intima to a less degree. The changes are in the nature of a connective tissue hyperplasia resulting in a great increase in the thickness of the wall but frequently leaving the lumen unaltered. At the same time fibrosis of the uterine wall has occurred which interferes with the normal contractility of the organ and the control of its circulation.

A diagnosis of metrorrhagia myopathica is justifiable under the following circumstances:

The patient is at or near the menopause and has borne children (the condition has never been observed in nullipara). Physical examination shows an enlarged and softened uterus with patulous os. All other causes of hemorrhage can be excluded and the usual therapeutic measures are unavailing. Endometritis frequently accompanies the disease but curettement has no permanent effect upon the flow.

The only curative treatment for these cases is obliteration of the uterine cavity or hysterectomy, the latter being ordinarily recommended.

For metrorrhagia, my most useful remedies have been sabina, geraneum, china, belladonna and ipecac, in the order of frequency of their employment. Many other symptoms and conditions besides the few that I have mentioned will doubtless occur to you as frequently prominent during the climacteric period. The subject is as broad as well as extremely interesting one, but in a paper of this kind it is not possible to be more than superficial. The boundaries between the physiological and pathological are so ill defined and the field is so extensive that even a superficial discussion of the subject may be of some value.

THE MEDICAL TREATMENT OF TUBERCULOSIS.

BY

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(Read before the New Jersey Homœopathic Medical Society, Princeton, May, 1908.)

THERE are four diseases in which medicine has made a sorry record. These are Bright's disease, diabetes, cancer and tuberculosis. Yet these diseases in their early stages are eminently curable by medical, hygienic and surgical treatment. The principal reason for this paradoxical condition is implied in the statement that they are curable in the earlier stages. If permitted to advance to the point at which they are usually recognized, the case is often hopeless. Restricting ourselves to tuberculosis, the first principle in its treatment is to recognize the disease at the earliest possible moment. All recent work in tubercle diagnosis has been directed and rightly directed to the earliest possible recognition of tubercular infection. To this end, the newly introduced cuti-reaction and conjunctival-reaction are of great value. The conjunctival-reaction is not as constant nor as easily recognized as the cuti-reaction and, in obscure cases, the constitutional and focal-reactions to the hypodermic injection of old tuberculin remain our most constant and satisfactory diagnostic tests. The most important quality of these tests is that which are available in all types of tuberculosis of the lungs, lymphatic glands, joints, peritoneum, kidneys and elsewhere, long before there is any discharge or throwing off of tubercle bacilli. From a personal observation of these reactions in three hundred cases of tuberculosis and two hundred non-tubercular patients, I can heartily endorse the cuti-reaction as reliable in ninety-eight per cent. of early and moderately advanced cases of tuberculosis. In common with all workers in tuberculosis, I exclude the far gone and exhausted cases, as many of them do not react to tuberculin in any form. A further exception is the occurrence of the reaction in two per cent. of apparently healthy people. On the other hand, the more I see of tuberculosis, the more convinced I am that while these signs have a positive value, their absence indicates nothing. Fever is an important symptom but there are cases of tuberculosis without fever. The tubercle bacillus is the most important objective symptom but many cases of tuberculosis

occur in which you cannot demonstrate tubercle bacilli. The new cuti- and conjunctival reactions are the most constant objective symptoms of early tuberculosis yet discovered, but tuberculosis can exist without them and even without the constitutional reaction to the hypodermically injected tuberculin, as I have been able to convince myself on several occasions. The truth is that there is no royal road to the diagnosis of tuberculosis. It is a matter of constant practice to attain skill in percussion, auscultation and the interpretation of clinical signs, and after you have acquired the skill, it requires eternal vigilance to avoid overlooking the cases of tuberculosis that lie around us on every side. So insidious and protean is the disease that the most careful of us will be caught napping occasionally.

Having established the diagnosis, I must insist that the best treatment of all local tuberculoses, where the tubercular focus is primary and can easily be excised, is surgical. This is the case in tuberculosis of one kidney, of the bladder, of the Fallopian tubes, of the larynx and often of the skin. Tuberculosis may run the course of a malignant disease and we are no more justified in leaving a tubercular focus in the body than in leaving an early carcinoma or sarcoma.

Next to surgery, the most important treatment of tuberculosis is hygienic. As insisted upon long ago by Brehmer, if you keep tubercular cases at rest and outdoors all the time, a certain percentage of them will get well. Dettweiler added forced feeding to the rest and open-air plan of Brehmer and this plan of rest, open air and forced feeding constitutes our best hygienic treatment for all forms of tuberculosis to-day.

If then, surgery is the proper prescription for most tuberculoses and hygiene for the rest of them, what is there left for medicine? Some experienced physicians say that medicine has no place whatever in the treatment of tuberculosis. This opinion is manifestly a reaction from the custom of several centuries of excessive drugging and foolish drugging of tubercular patients with all sorts of fancied specifics. Like all reactions, this belief in the worthlessness of all medicine in tuberculosis is an extreme view. In the opinion of true therapeutists, it is not now warranted and never has been warranted. In the present state of our knowledge, medicine cannot replace hygienic and dietetic treatment, but it must often take the place of surgery; sometimes, as in tuberculosis of the lungs and

pleura, because the disease cannot be reached; sometimes, as in tuberculosis of the lymphatic glands, because the disease cannot be thoroughly eradicated by operation; or, as in extensive lupus, because better cosmetic results can be obtained by the Finsen light; or as in early tuberculosis of a joint, because experience has shown that fixation and hygienic treatment will save the function of the joint; and lastly, because medicines do have a specific curative effect in some forms of tuberculosis. It should be recognized, however, that the successful use of medicine for the cure of tuberculosis is an art that must be learned. If the physician will not take the trouble to master this art, then, for him, truly, medicines will not cure tuberculosis.

Tuberculosis of the cervical lymph-glands of children is a very common type. The old term *scrofula* will not do, though in the judgment of tuberculosis experts, all *scrofulous* glands are tubercular. When confronted with such a case, verify its tubercular nature by the cuti-reaction and treat with open-air life, six meals a day, excess of fat food and physical rest, if fever is present. In many cases, surgery is unnecessary and inadvisable unless the tissues have broken down. Then the liquid should be evacuated through a small puncture and ten per cent. iodoform emulsion injected. These cases are usually benign and recover completely on hygienic and dietetic treatment, supplemented by the proper medicine. In many cases, the homœopathic remedy is successful, as *baryta*, *calcarea*, *silica* and *Hecla lava*. *Bacillinum* has some cures to its credit. So has arsenic in both high and low potencies. My own preference is to attack the disorder isopathically, using a very minute dose of triturated tubercle bacilli, especially the bacillus emulsion of Koch. Soft soap inunction and passive hyperæmia are valuable here.

Urinary tuberculosis is diagnosed by the presence of tubercle bacilli in the urine. Such a case should have the urine drawn from each ureter to determine whether the bladder alone or one or both kidneys are involved. Tuberculosis of the bladder is chiefly secondary to renal or prostatic tuberculosis. Primary renal tuberculosis confined to one kidney should be operated at once and the kidney removed. There are many human beings walking about to-day in good health who would have dragged out some years of sepsis and ulcer and died years ago had it not been for this apparently bold procedure. Tubercu-

losis involving both kidneys or a mild tuberculosis of the bladder or prostate is a fair case for hygienic and medicinal treatment. The best treatment is the bacillus emulsion in the dose and method of administration about to be described and soft soap inunction.

Tuberculosis of the prostate and testicle is amenable to the tuberculin treatment but to very little else in the way of medicine. Tubercular ulceration of the bladder with much pain, tenesmus and discharge demands supra-pubic cystotomy, cutting of the ulcers and the application of iodoform or lactic acid.

Tuberculosis of the tubes and ovaries is often part of a generalized tuberculosis. The diagnosis rests on pelvic examination demonstrating inflammatory thickening of the tubes together with a tuberculin reaction, hypodermic, skin or eye, indicating tubercular infection. If the process is localized and there are no constitutional symptoms, surgical excision is the best treatment. If, as is often the case, there is generalized abdominal tuberculosis, surgical removal of the tubes often removes the chief focus of infection and the mere surgical opening of the abdomen stimulates the curative mechanism of the body. As an accessory to surgery, the treatment by the bacillus emulsion administered hypodermically in very minute dose at long intervals is a very useful procedure.

Tuberculosis of the skin is amenable to many forms of local treatment. Small lupus ulcers anywhere except on the face should be excised as soon as recognized. No time should be wasted in attempting to secure cosmetic or bloodless results. On the face, lupus may be treated successfully by the Finsen light, by the X-ray, by radium. The second choice is curetting and, last, the various caustic pastes; but sometimes, even in the hands of expert dermatologists, these measures fail and excision must be resorted to, to avoid extensive scarring. Bacillus emulsion or old tuberculin is a useful adjuvant to local measure but should never be relied upon in their place.

Tuberculosis of the lungs is the most frequent and most important form that you meet. Of all tuberculosis it is the best adapted and quickest to respond to the treatment by open-air, physical rest and over-feeding, especially with fat food. Some of our nicest diagnostic problems are presented by these cases. I can recommend to you strongly the use of the skin-reaction and the hypodermic injection of tuberculin in making your di-

agnosis of doubtful cases. The Bier hyperæmia treatment is applied by the Kuhn lung suction. Some cases of pulmonary tuberculosis are well adapted to treatment by tuberculin. Others should not be touched with tuberculin in any material dose.

In describing the treatment of tuberculosis, I have mentioned several measures which are not as well known in this country as they deserve to be; soft soap inunctions, the Bier hyperæmia treatment and the use of the various tuberculins.

The soft soap inunctions. Thirty years ago, in the treatment of scrofulous glands Kapesser introduced the practice of rubbing ordinary green soap into the skin, and it has since been applied to all forms of tuberculosis. One-half to one tablespoonful of green soap is rubbed into the back or thighs or buttocks for ten minutes, allowed to remain for one-half to one hour and then washed off. The mode of action of this treatment has been variously explained, most plausibly perhaps as increasing the alkalinity of the blood and so stimulating osmotic nutritive processes. Whatever the explanation, men of the widest experience in the treatment of tuberculosis unite in commending the results obtained in tuberculosis of the lymphatic glands, of bones and joints, of the peritoneum and of the lungs. The soap may cause decided irritation of the skin, in which case it should neither be rubbed in nor left on for so long a time and the area of skin treated should be changed frequently. To avoid softening, it is wise not to use the soap on the skin over a mass of swollen glands.

The Bier passive hyperæmia treatment has become better known during the past two years, although at the meeting of the National Association for the Study and Prevention of Tuberculosis last summer in Washington, very few of the many surgeons present had any personal experience with it. As most of my auditors who have read Dr. Dieffenbach's articles in the *North American Journal of Homæopathy* and the *Chironian*, know this treatment is based on the principle of flooding the tubercular area with blood. It is known that the various protective and curative chemical substances are contained in the blood-serum and it is supposed that in so doing we aid the cells of the tissues in their resistance to the invasion of the tubercle bacillus and its poisons. The methods employed are purely mechanical. In tuberculosis of elbow or wrist, knee or ankle, a rubber bandage is applied above the affected joint, tight enough to obstruct the venous circulation but not tight

enough to produce any appreciable pain. It is worn at first 10 minutes; then for one hour two or three times daily and, after a little training, the patient or one of the patient's family can easily carry out the treatment. The effect on tubercular bone and joint is remarkable. Tubercular cervical glands, where the return flow cannot be constricted in this manner, are treated by dry-cupping, a glass cup being placed over them and suction exerted by a small syringe or rubber bulb.

Tuberculin treatment. Last and most fascinating comes the tuberculin treatment. There are now obtainable many varieties of tuberculin, each of which has worked marvels in the hands of its enthusiastic inventor but has failed to justify its reputation in the hands of others. Koch's original "old tuberculin" fell into great disfavor after a few years' use. This was due, as all tuberculosis experimenters now admit, to the use of too large and too frequent doses. Old tuberculin was succeeded by T. R. and this by bacillus emulsion which represents the highest therapeutic achievement of Robert Koch. Old tuberculin and T. R. were the products of an effort to extract from tubercle bacilli their immunizing principle. In the last tuberculin, the bacillus emulsion, Koch gave up all hope of extracting such a principle and employed a trituration of the bacillus itself sterilized by grinding in sand. There is some question as to whether this bacillus emulsion does not contain some living bacilli. Wright, of opsonic index fame, heats the bacillus emulsion to sixty degrees centigrade for twenty minutes to kill these bacilli. Also, at the Phipps Institute in Philadelphia, they heat their tuberculin to sixty degrees C. for fifteen minutes. Personally, I do not heat the bacillus emulsion. I am afraid of destroying the toxins which are extremely sensitive to heat and I do not believe that the presence of living bacilli in bacillus emulsion is such a disadvantage as it would seem at first thought. If living bacilli are present, their virulence is very much impaired by trituration and the length of time they are kept. In animal experiments, the efficiency of bacterial immunizing and cure is in direct proportion to the degree in which we approach the living organism of reduced virulence. Much of the success in the prevention and treatment of tuberculosis in the lower animals and the failure of the same measures in human patients has been due to hesitation in using living bacilli of attenuated virulence with our patients, as we do with animals. To my mind, a patient who is already swarming

th virulent bacilli cannot be injured by the addition of a few
ore of attenuated virulence.

The dose of bacillus emulsion to which bacteriological thera-
utists have come is startlingly infinitesimal. In practice, you
d one drop of the bacillus emulsion to two ounces of 0.8 per
nt. salt solution and shake vigorously. This makes a 1 to
1000 dilution, corresponding to our third decimal, every c. c.

which contains one two-hundredth of a milligram of the
iginal bacillus trituration. Koch's initial dose is seven drops
this 1-1000 dilution every third day, gradually increasing to
c. c. of the original emulsion. This final dose is much too
rge. Wright and many English observers who follow the
sonic test use only three drops, corresponding to 1 1-1000 of
milligram or about one sixty-thousandth of a grain, five drops
our fifth decimal dilution. The 1 1-1000 solution will keep
r eight or ten days, if made with one-half per cent. carbolic
id solution and kept in the ice box. At the end of that time
whenever it gets turbid, it should be made fresh.

Time does not suffice to relate individual experiences with
acillus emulsion. I will simply say that it is the form of tu-
rculin in most general use to-day; that I have had some very
tisfactory results from its use; that it is the substance that
Wright and his followers use as a "tubercle vaccine" in their
sonic work and that, as it contains the whole bacillus and all
s toxins in a form as little altered as possible, it is theoretic-
y the most effective tuberculin. It has practically supplanted
R., which is a bacillus emulsion with the water-soluble ex-
acts removed.

Amid the chorus of praise for bacillus emulsion, one is sur-
ised to read now and then of some tuberculosis worker of
ide experience who prefers the old tuberculin. After consid-
able experience with tuberculosis, I can appreciate this atti-
de. In cases of tuberculosis which seem to come to a stand-
ill under bacillus emulsion, a dose of one to five milligrams
old tuberculin will seem to arouse the vitality and the cure
ill progress more rapidly. It acts much as we are accus-
d to expect sulphur and psorinum. At the Flower Hospital,
cases of croupous pneumonia with delayed resolution, where
e suspect tuberculosis and give a diagnostic injection of five
illigrams of old tuberculin, we have observed with interest
e prompt fall of temperature and rapid resolution and im-
rovement in the feelings of the patient within twenty-four or

forty-eight hours instead of the rise of temperature and aggravation that we had anticipated. Old tuberculin is a powerful agent in pulmonary disease.

Old tuberculin is much more concentrated than bacillus emulsion, so that every c. c. of the 1-1000 dilution corresponds to one milligram of tuberculin. As this necessitates an injection of seventy-five drops for the usual diagnostic dose of five milligrams, I have trained my internes to make the dilution regularly 1-330. Of this, each five drops contain one milligram of tuberculin, and doses of one to ten milligrams are easily calculated and administered with an ordinary hypodermic syringe. The injection should never be repeated within one week and if the patient is doing well, wait two or over three weeks before repeating the dose. You will recognize this as good homœopathic doctrine.

Of the other tuberculins, the most promising is the Marmorek's serum, which has been used by Hoffa and others in orthopædic tuberculosis with good results. Marmorek's serum is the most perfect effort to-day to make tubercular antitoxin on the lines of diphtheria antitoxin. Paquin's serum, made years ago, was one of the first of this type. Trudeau and Baldwin, at Saranac Lake, prepared such a serum in 1895, but found it of no use in preventing or curing tuberculosis in the lower animals. On the other hand, Maragliano's serum is a mixture of an antitoxic and an anti-bacillary serum. The good results claimed by this observer have not been duplicated in this country. It was tried thoroughly at the Phipps Institute in Philadelphia, but they have now given it up. Denys' bouillon filtrée or filtered bouillon is practically the same as Koch's old tuberculin but is not heated, for fear of destroying the sensitive toxalbumins. The bacilli are filtered out through porcelain. Beranek's tuberculin is an extract of the bodies of the bacilli and their toxins somewhat similar to the old tuberculin. Von Behring's tulse is a paste of tubercle bacilli rubbed up with chloral, to diminish their virulence. Reports of those to whom he has entrusted it, are not encouraging. Of all these preparations, my preference is for the bacillus emulsion in doses of 1-1000 to 1-200 of a milligram, the old tuberculin in doses of 1-10 to 5 milligrams and the Marmorek's serum. None of these doses should be repeated oftener than once a week and if the patient is doing well, delay two or even three weeks before repeating. All tuberculins should be used hy-

mically as they are destroyed by the gastric juice. They
e used by rectal injection but this method requires much
material and impresses me as being inexact.

ust give a word of warning concerning the cases that are
ed to tuberculin treatment. Patients who are rapidly los-
esh and growing weaker should not be given tuberculin
form. Patients with persistent fever, rapid pulse should
treated with tuberculin except in the minutest dose. The
ment is best adapted to the slowly progressing or station-
on-febrile cases, especially those who have come to a
still under climatic and dietetic treatment. Sahli says
that the kind of man that gives the tuberculin is much
important than the kind of tuberculin he gives. This is
true. Tuberculin is a valuable remedy in tuberculosis but
it be used with great caution and a certain amount of in-
nuce or it is capable of doing great harm.

sum up, first, early diagnosis, using the tuberculin, cuti-
nctival-, or hypodermic-reactions, if necessary; second,
al removal, if anywhere possible; third, the hygienic and
c treatment; fourth, medicines, of which the most effec-
re those of animal origin, especially the isopathic tuber-

INDICATIONS FOR THE RADICAL MASTOID OPERATION.

BY

GEO. W. MACKENZIE, M. D., PHILADELPHIA, PA.

AVE selected the above subject for this evening's paper
the suggestion of one of your members and because of
ct that this is a society composed mostly of general medi-
en who would prefer something that would be of interest
m, rather than a more technical paper intended for speci-

a quarter of a century preceding the year 1900 the sur-
of the ear and more especially the so-called radical opera-
ad fallen into bad repute, from the fact that quite a large
nt. of cases so operated developed, after the second or
day, intra-cranial complications, followed by death. The
rist was at that time in no position to give a satisfactory
osis. He was unable to tell in which cases to expect and

in which not to expect post-operative complications. This condition of affairs naturally led him to keep his hands away from all cases where there were no vital indications for operation. In other words, he waited for the intra-cranial complications to develop before deciding to operate. This could have had but one result, that was to increase the mortality even beyond the previous figures. Something had to be done. The true scientific spirit took possession of the otologist and with the aid of the physiologist and pathologist the new science of otology was born. Since then the science of otology has been developing out of all proportions compared with the other branches of medicine and it is safe to say that more progress has been made during the last few years in the physiology, pathology and surgery of the ear than has been made in all the other branches combined.

The recent knowledge of the physiology of the inner ear, especially the static labyrinth, has contributed mostly toward clearing up many of the enigmas in otology. With this knowledge as a foundation, exact examination methods have been developed, until now a diagnosis can be made with a mathematical precision impossible in the other branches. Upon the diagnosis depends the indications for operation. This brings us to our subject. It must be remembered first, that the radical mastoid operation is done for chronic suppuration of the middle ear and never for acute; furthermore, it is never made in uncomplicated cases where a cure can be effected by conservative treatment.

Since conservative treatment fails only in the complicated cases, the indications for operation are really the complications of chronic middle ear suppuration.

The indications may be divided into two groups—the extra-cranial and the intra-cranial. We shall first consider the extra-cranial.

I. *Failure of conservative treatment.*—The mere fact that an acute middle ear suppuration becomes chronic is evidence of some complication, since the vast majority of cases recover spontaneously. If a suppurating mid-ear is treated conservatively for six weeks by aspiration of the secretion, thorough antiseptic cleansing, the use of H^2O followed by alcohol or any similar treatment combined with the indicated internal remedy with negative results we have good reason to believe that further conservative treatment will

fruitless. Complications leading to the failure of conservative treatment may be divided into those due to insufficient drainage or to retention of secretion in one or more of the accessory cavities of the middle ear (empyema). Excepting in those cases where adenoids or enlarged posterior ends of the inferior turbinate are the cause of the insufficient drainage through the Eustachian tube, we have a relative indication for radical operation.

I. *Persistent fœtidity of the secretion.*—This is a very important symptom and may be due to one of four causes:

1. Long retention of pus in the middle ear spaces in those cases where the ear has not been cleansed for a long time or not perfectly cleansed.

2. Bone involvement (the ossicles or the bony walls of the tympanic cavity).

3. Cholesteatom.

4. Carcinoma.

It is necessary in every case with offensive discharge, to cleanse the ear thoroughly; if for no other than diagnostic purposes. If, after three or four days consecutive cleansing with antiseptic washes, the fœtidity remains we may exclude the first mentioned cause (old and foul pus). We have left the three remaining conditions to consider—either bone involvement, cholesteatom or carcinoma; any one of which gives us an absolute indication for the radical mastoid operation.

II. *Recurring polypi.*—Everything appearing in the ear commonly spoken of as polypi are not true myxomatous growths. The true myxoma is rarely found in the middle ear and when found, its favorable location is on the promontory due to the irritation of pus dripping down from the attic above, in the same manner as the nasal polyp is produced from irritation of pus from one of the accessory sinuses of the nose. The more frequent form, of so-called polyp, in the ear is the exuberant granulations. These are generally secondary to deeper bone involvement and the mere removal of the polyp with a curette does not remove the primary condition which produced the polyp. Besides, it must not be forgotten that the removal of polypi with a snare has not infrequently brought with it the retraction of the whole roof of the middle ear (tegmen tympani), exposing the dura to infection and it would be far safer to do the radical operation than to run such a risk.

IV. *Facial paralysis.*—Facial paralysis is not infrequently

met with during the course of chronic middle ear suppuration and may be due to—

1. A congenital dehiscence in the bony canal permitting a direct pressure of the secretion upon the nerve.
2. Toxic poisoning of the nerve with intact canal, due to the toxins and not the bacteria themselves.
3. Sequestration of bone involving the facial canal. This may be local or there may be a sequestration of the whole labyrinth, in cases where the pyramid is surrounded entirely by pneumatic cells which are in direct communication with the mastoid cells.

An early affection of the facial nerve speaks for a congenital dehiscence or toxic affection of nerve. Facial palsy combined with complete loss of function of the labyrinth speaks for a sequestration of the entire labyrinth from extension of mastoiditis or involvement into the peri-labyrinthine mastoid cells. An isolated palsy appearing late speaks for localized sequestration or erosion of the bony canal, especially when associated with polyps.

No matter which of these conditions may be the cause of facial palsy, the indication is given for an immediate radical operation.

V. *Mastoiditis*.—Mastoiditis occurring during the course of chronic middle ear suppuration may be acute or chronic and may be associated with periostitis or subperiosteal abscess, with or without fistula, opening (a) externally on the surface of the skull, opening (b) into the external canal, or opening (c) inward toward the dura, causing extra dural abscess, or opening downward through the tip of mastoid into the sterno-mastoid muscle; between the sterno-mastoid and the digastric; into the digastric or into the pharynx. These last mentioned are classified under the name of the sinking or Bezold's abscess.

Acute mastoiditis with subperiosteal abscess and antrum fistula is the most frequently met with. It is easily recognized by the characteristic retro-auricular swelling, the typical position of the ear (downward, forward and away from the head), the swelling of the posterior and upper wall of the bony canal. We emphasize bony canal, because of its importance in differentiating mastoiditis from external otitis where the swelling is limited to the membranous canal. Aside from these physical signs we have the cardinal symptoms of heat, tenderness, pain and fever. In the more chronic forms of mastoiditis the signs

ptoms are less intense but the periosteal swelling, diminution of mobility of the periosteum over the bone and tenderness are always present.

Some of these forms of mastoiditis are complications which require an early radical operation.

Acute or chronic obstruction of the external canal.—The acute obstructions may be due to otitis externa, mastoiditis with great periosteal swelling of the bony canal and large polyps; while the chronic causes are congenital atresia and exostosis.

Probably the most frequent cause for acute obstruction is the otitis externa which may close the canal quite as completely as atresia. In this connection it is well to mention that otitis externa is generally due to one of two causes—the use of unclean instruments or the too free use of iodoform (especially in young children), and it would be safer for the general practitioner to ignore iodoform entirely than to run the risk of the formation of dermatitis.

Periosteal swelling of the posterior and superior wall of the external canal from mastoiditis, frequently leads to obstruction, but here the indication for operation is already given by the mastoiditis.

Polyps are a less frequent cause and apart from the obstruction the presence of polyps themselves are a sufficient indication for the radical operation.

In the more chronic obstructions—congenital atresia is a definite indication for immediate radical operation combined with a satisfactory plastic in all cases, however this complication plays a more important part in the acute than in the chronic mastoiditis.

Exostosis may be operated locally; however, the unsatisfactory results of a local operation and the tendency for recurrence and the still greater danger secondary to the intense inflammatory reaction from this minor operation should lead us to opt rather the radical operation.

I. Cholesteatom is found only in chronic and never in acute middle ear suppuration. Cholesteatom without doubt is the most frequent (18 per cent. of all cases) and the most important extra-cranial complication the otologist has to deal with.

Because of its frequency and since it is an important factor in the production of intra-cranial complications it might be well to describe briefly what a cholesteatom is, how it is

formed and the methods used for its diagnosis. I shall speak only of the type of cholesteatom originating in the middle ear. A cholesteatom is a more or less spherical mass of epidermis often having buds, so to speak, springing from the parent cholesteatom; its surface is smooth and shiny and looks not unlike a pearl. It is more or less lamellated. The surrounding bone is polished smooth and hard due to a sclerotising otitis (reaction). The more central portion of the cholesteatom is rich in cholesterin crystals which play an important part in the diagnosis. It is produced by the spreading of the epidermis from the canal into the tympanic cavity and when it reaches a depression containing granulation tissue it grows more freely than under normal conditions; the result is a rapid multiplication of epidermis on the surface.

It has been long known that epidermis cannot spread upon any but a smooth or depressed surface, therefore before the epidermis of the external canal can spread into the tympanic cavity the perforation must reach the edge of and involve the annulus-tympanicus. Another method by which the epidermis of the external canal can spread into the tympanic cavity is along the hammer handle, in cases where it is adherent to the inner wall of the tympanic cavity. These are very important factors which aid us in the clinical diagnosis.

The diagnosis of cholesteatom is quite easy in at least 95 per cent. of all cases, even when small. The clinical picture is that of a peripheral perforation or adherent hammer handle as above mentioned, or an attic perforation where anatomically the annulus does not extend. In some instances the cholesteatom or part of it may actually be seen by the examiner. Aside from this there is the characteristic odor previously mentioned. This odor is the same as that of long worn, foul smelling socks and in both instances is due to the same cause (decomposed epidermis). We have a still more certain sign, that is the presence of cholesterin crystals found in the washed-out secretion. These crystals are typical and best seen in their natural state under the microscope with a $\frac{1}{8}$ objective. The crystals are rhomboid in shape, occasionally with a corner broken off and when seen in numbers the corresponding surfaces of the different crystals are parallel to each other.

The conservative treatment of cholesteatom with alcohol has in a few instances given apparently satisfactory results but is never absolute nor permanent. One is handicapped in the co

ative treatment, since we cannot tell the exact extent of the cholesteatom nor are we able to remove all of the so-called matrix, besides we are unable to locate the matrix and unless the matrix is removed the cholesteatom will recur. When one considers the difficulty of total excochleation by operation and the tendency for recurrence afterward he can better understand the difficulties attending the conservative treatment; furthermore the conservative treatment is attended with the danger of secondary infection which leads to a sudden explosive swelling of the cholesteatom and with it spreading of a infection in all directions.

In view of the above facts and since a cholesteatom once formed will continue to grow, destroying bone and exposing important parts—membranes of the brain, sinus and the membranous labyrinth—it is safest in all cases to perform the radical operation, removing the cholesteatom and the surrounding otic bone for at least 2 m. m. in thickness to include all of the offshoots or buds.

We next take up the intra-cranial complications.

Acute labyrinth suppuration. I have included acute labyrinth suppuration under the intra-cranial complications because of its connection with otogenic middle ear suppuration since it is generally accompanied with one of the types of meningitis and not infrequently with cerebellar abscess.

Briefly stated, the cardinal symptoms are: 1. Sudden deaf-

2. Vertigo. 3. Rotatory nystagmus to the sound side, more pronounced when looking to that side but present in all positions of the eyeball. 4. Negative caloric reaction. 5. Diminished or absent vestibular reaction to turning. 6. Diminished galvanic reaction on the diseased side with the kathode to the ear. 7. Loss of equilibrium, the patient tending to fall to the diseased side. The only disease to be considered in differentiation is cerebellar abscess; however this is quite easy even in those cases where there is a combination of the two diseases (labyrinth suppuration and cerebellar abscess).

In every case of labyrinth suppuration should be immediately operated and with it the complete removal of the semi-circular canals, free opening of the cochlea and vestibule. The mortality of the unoperated cases of labyrinth suppuration is variously estimated at from 65 to 85 per cent. while the mortality of cases promptly operated is less than 8 per cent. It is well to emphasize the fact that the mortality is higher in cases

of labyrinth suppuration when the ordinary radical operation is done and the labyrinth operation left undone than in the cases where *no* operation is done at all.

2. *Meningitis*.—There are several types according to anatomical structures involved. They may be divided into pachymeningitis externa (circumscribed extra-dural abscess), pachy-meningitis, pachy-lepto-meningitis, lepto meningitis and meningo-encephalitis.

The leptomeningitis may be circumscribed or diffuse, may be serous or purulent. Meningitis is too large a subject to discuss here. The differentiation of the anatomical types can best be made at the time of operation and by the lumbar puncture. It very rarely happens that we get one of these pure types; for instance, in all cases of leptomeningitis there is some encephalitis which is apparent by the prolapse of the brain when the dura is incised. In cases of leptomeningitis serosa or purulenta besides the radical operation the dura should be exposed and freely incised, then with a brain knife the ventricles punctured to allow drainage and thus relief of pressure. To this may be added repeated lumbar puncture according to further indications.

The results of the operative treatment of meningitis have recently been very satisfactory, especially in the serous type. Improvement may be observed even a few hours after the operation. Naturally the earlier the operation the better the result so that our object should be to make as early a diagnosis as possible (during the irritative stage). Naturally, when meningitis is secondary to labyrinth suppuration it is necessary to include the labyrinth operation.

3. *Brain abscess*.—Here we have to consider the temporal lobe and cerebellar abscess. The temporal lobe abscess may be due to either a congenital dehiscence in or an erosion, by cholesteatom, of the tegmen tympany and the carrying of infection by lymph channels. The diagnosis is relatively easy when occurring upon the left side. Körner and Alexander who have observed the greatest number of such cases have invariably found amnesic aphasia but never motor aphasia, except late in the process after rupture of the abscess and the development of meningitis. The general pressure symptoms—headache, vomiting and choked disc found in cerebral tumor are less pronounced or may be absent in brain abscess. Abscess of cerebellum is much more frequent and easier to diagnose.

a study of the character of *nystagmus* is a great aid. *Displacement of the equilibrium* is characteristic; the tendency to this is not so great as in labyrinth suppuration, the patient tends rather to walk in a circle. *Inco-ordination* and *muscular weakness*, more pronounced on the diseased side. *Somnolence, rigidity* of the back of the neck, this symptom belongs more to cases of the posterior fossa than to meningitis alone.

The early operation of brain abscess, no matter where its location, is very gratifying and should be performed in every case before it ruptures and secondary meningitis develops.

Affections of the sinus.—Sinus phlebitis, perisinous abscess and sinus thrombosis may be included under one head. Briefly considered the symptoms of sinus thrombosis are generally quite characteristic. Chill, sudden changes in temperature from normal to subnormal to 104, 5 or 6, dusky greenish pallor of the face, apathy of the patient, position of the head (drawn to the diseased side), tenderness of the neck on the diseased side extending along the anterior margin of the sternocleidomastoid muscle. These symptoms associated with middle ear suppuration speak for sinus thrombosis; however, in order to exclude malaria blood examinations should be made. In the more doubtful cases we are aided at the time of operation by the appearance of the sinus itself. Aspiration of the sinus with a hypodermic is to be condemned; it is far safer to make a small incision to ascertain its contents. The operation consists first in the ligation of the internal jugular to prevent air embolism, then the radical operation, laying free and opening of the sinus, complete removal of thrombus and excision of the entire diseased part of the sinus wall.

I have not discussed the tubercular type of chronic middle ear suppuration since we have here a contraindication for operation, the almost invariable result being bad healing and tubercular meningitis. With increased knowledge of the subject our future results may be more favorable than at present. In this paper I have merely tried to briefly cover a large subject without any attempt at detail.

A COMMUNICATION.

TO THE EDITOR OF THE HAHNEMANNIAN:—

Will you kindly permit me a few words on Dr. Fornias' "Vindication" appearing in your May issue?

Certainly, if there is a law of cure the single remedy is an indispensable necessity of it, but the small dose is no essential part of the law, but merely a theoretic deduction from the primary dogma. They do not, necessarily, stand or fall together for if they did, then the law long since fell when alternative compounds and material doses came to be rather the rule than the exception in homœopathic practice. If there is a law of cure Dr. Fornias is entirely correct when he defines a law of dose, as he does when he says: "For a similar to be efficacious must be given as proven (alone), and in a dose *below the scale of disturbing action in the healthy*." This would be beautiful if true, but the fact that it is not true is one of my principal arguments against the existence of a homœopathic law of cure. "*The scale of disturbing action in the healthy*" has not been established for any single drug in the materia medica, unless a scale ranging from lethal doses to dilutions as far as the drug has been carried can be called a "scale," "below which" the dose above which according to your point of view regarding dynamization) the drug "to be efficacious must be given as proven (alone)."

Quoting Fornias: "Employing a similar in combination, even in *alternation with another similar*, is erroneous, for they cannot have exactly the same influence, neither the same mode of operation, and if administered in any dose above the limit of disturbing action, it would inevitably increase the symptoms for which it was given. This is incontrovertible, and conforms to the laws of thought. *Pure experimentation, the single remedy, and the minimum dose* then form the tripod upon which *similia* must rest. Without this synthesis the whole superstructure of *homœopathy* must fall and crumble."

If all this is true one could well say, except to a very limited extent, homœopathy has never existed at all. First, the proving of drugs as conducted by the homœopathic school cannot be dignified as "*pure experimentation*," for all admit that wheat and the chaff are yet unseparated. Let me cite an example from the latest "*pure experimentation*." Having given

critically the blood examinations (aggregating fifty-three) made on twenty-three of the provers of the last belladonna proving, I make this extraordinary statement: Not one of the examinations bears any internal evidence of accuracy in any single particular. Hahnemann and all his followers have used indiscriminately the pure and the clinical symptoms as the basis of all their prescribing. To a man, they used the chemical compounds, pure and impure, from homœopathy to incipency. The single remedy, at all times, I believe has been the exception and not the rule, as disease and human nature have undergone no radical change. The statement that a drug, "if administered in any dose above the line of purging action, it would inevitably increase the symptoms which it was given," is a purely theoretic deduction from the supposed existence of a law of cure which has been controverted so often in practice by all schools of medicine as to be incomputable by the human mind.

The superstructure of homœopathy is the practice of the majority of its professed followers, and cannot be said to stand on the tripod of "pure experimentation, the single remedy in the minimum dose," and so far as this tripod is concerned the superstructure has fallen and crumbled. The alternation of remedies and the use of compounds, natural and artificial, is not abused, and is often irrational, as when the professor of homœopathy recommended aconite and belladonna in rapid alternation, only to be held up to ridicule by the professor of materia medica, who followed him and overheard the recommendation. On the other hand, the great mass of alternating and emulating compounds is based on reasoning from mixed clinical and theoretic data, with a laudable effort to meet the exigencies of practice in covering symptoms of greatly diverse origin and character, which demand immediate attention, and which cannot be covered by the symptomatology and clinical experience of the single remedy. All of which would not only not be necessary, but would be harmful, if not impossible, did a natural cure actually exist.

Regarding experiments by medical men and scientists, not homœopaths, tending to confirm the homœopathic dogma and the doctrine of dynamization, it is only fair to conclude that they have nothing of the subtle claims and distinctions peculiar to homœopathy. I have recently said elsewhere, that if we—homœopaths—cannot prove the scientific existence of our

so-called law of cure by means of our own science, certainly we cannot by means of the science of others which is created for an entirely different purpose.

Dr. Fornias claims that he could have quoted, among others of the same school, Carroll Dunham. I yield to nobody in respect for Dunham, who probably was our greatest clinical exemplar, yet he was the person who first started me to think. While reading Dunham's lectures and carefully comparing statements with the text of Allen's Encyclopedia, before the appearance of the Hand Book, I was struck by the fact that many inconsistencies and contradictions existed between the two publications. Those occurring in the first three lectures on aconite, bryonia and rhus toxocodendron were embodied in a paper and sent to the *HAHNEMANNIAN*, then edited by Farrington. He returned the paper with the explanation that it was unfair to Dunham, whose lectures were based on clinical experience and not on the text of the *Pure Materia Medica*, and I awoke to the fact that clinical experience may have of greater practical value than the texts of our classics.

Dr. Fornias closes his "Vindication" with six questions. Regarding questions one and two, which are really the same, I refer my readers to the editorial in the *HAHNEMANNIAN* for April, on "The International Congress on Tuberculosis," a few lines of which I quote. "Members of the Homœopathic School cannot but be humiliated when we realize how little we have contributed to bring about this important event. The fact remains that as an organized body our contribution to the pathology, diagnosis and prevention (and it might have included treatment*) of tuberculosis in general or to the success of the congress in particular have been practically negligible. Should the homœopathic school refuse to have anything to do with the congress whatever it would detract but little either from the value or the success of the gathering. Should the members of the old school medical societies, however, withhold their aid from a body from the work of the congress there is every reason to believe that the whole thing would be an utter failure."

"We cannot but feel that there is a lesson in these facts. If the members of the homœopathic school would do well to take to heart—namely, that schools of medicine, as well as individual men, are known by their fruits, and that the public demand of us, not more materia medica, not philosophical and verbose essays on the 'law of similars' or 'the power of the

*Wanstell.

esimal dose,' but practical demonstrations of our ability and willingness as an organized body of physicians to measure up to the needs of the day and generation in which we live."

It may be that there are reflections in this last paragraph making a personal application. Be this as it may, so long as it is true that schools as individuals are known by their fruits.

One of the fruits of the homœopathic school is its immoderate unwillingness and inability as an organized body to measure up to the needs of the day and generation in which we live; when, as individuals, we are humiliated by the fact of being practically excluded from participating in this "important movement" by virtue of membership in an "organized body," are we to sit supine and make no effort to find the why and the wherefore; and where are we more likely to find the origin of the trouble than in the school's dogma and theories as it is the most likely and least insulting place to look for it. How else shall the school *prepare* to give "practical demonstrations of" its ability and willingness" than by freeing itself from the yoke which holds it in the humiliating position portrayed in this editorial, and by ceasing to hide behind a subterfuge—"You cannot prove it"?

Not so sick, my lord,
As she is troubled with thick-coming fancies.
Cure her of that.
Therein the patient must minister to himself.
If thou couldst, doctor, cast
The water of my land, find her disease,
And purge it to a sound and pristine health,
I would applaud thee to the very echo,
That should applaud again.

Regarding question 3. The gentlemen therein mentioned have been "ignored" long since, and have, in all probability ignored each other and themselves, time and again, both in their practice and their teaching.

Regarding question 4. We undoubtedly get in our colleges and hospitals what we expect and pay for, and the "opinions of our enemies" have already taken root and prevail among those entrusted with the teaching and protection of homœopathy. Two colleges, one in the East and one in the Middle West, have only recently catholicised their curriculums and removed the word "Homœopathic" from their names.

Regarding question 5. "Disloyal men" have invaded "our

centers of instruction," but whether they are "to lead further homœopathic physicians to temptation and failure," can easily be answered by the question, whether or not they have already done so?

Regarding question 6. If the definitions of a "Regular Physician" and a "Homœopathic Physician" adopted, and printed annually, by the American Institute of Homœopathy have any vitality, then the only obligation we are under to our patients is to be first Physicians and then Pathists.

ALFRED WANSTALL, M. D.

Baltimore, Md., May 14, 1908.

THE MANAGEMENT AND TREATMENT OF TUBERCULOSIS IN INFANTS AND CHILDREN.—Dr. John Lovett Morse, discussing this subject before the N. Y. Academy of Science, said: "Experience with children suffering from surgical tuberculosis in sanatoria abroad showed that, on the whole, they did better at the seashore than inland, and that they did better at the seashore if the climate were temperate than if it were cold or warm." His experience at the Boston Convalescent Home for Children showed that they did well inland and in a cold climate, but that a stay of at least two months was necessary. The delicate, slender, neurotic type of child did better inland in comparatively mild climates. He cautioned against overexercise with this class of cases. The child who was heavy, coarse and phlegmatic did better at the seashore. If amyloid or kidney disease had developed, both classes did better in a warm and dry climate.

While visceral tuberculosis in adult life meant to all intents and purposes pulmonary tuberculosis, in the vast majority of instances uncommunicated, this was not the case in early childhood. At this age pulmonary tuberculosis was usually not a local disease, but part of a more or less generalized tuberculosis. The younger the child the truer this was. Children with pulmonary tuberculosis were less liable to bear extreme cold and exposure well than those with surgical tuberculosis, and withstood "hardening" and exposure very poorly.

The dietetic treatment of tuberculosis in early life was essentially the same as in adult life. The drug treatment in childhood was purely symptomatic. The susceptibility to opium, however, should be remembered. He knew nothing about the effects of tuberculin in children and was naturally so. —*Archives of Pediatrics.*

EDITORIAL

PSYCHOTHERAPY AND THE CHURCH.

THE growing importance of psychotherapy in the opinion of the public has been a matter of surprise and of astonishment to most of the members of the medical profession. While the medical methods of treating the sick are as old as the race, because of the fact that the recent movements toward mental treatment were originated either by flagrant charlatans for pecuniary purposes or weak-minded fanatics under the influence of religious cults, the medical profession naturally held its hands free from the whole subject. The fraudulent methods of many of the psychotherapists were exposed and the doctors ridiculed the patients who were "foolish" enough to place themselves under such treatment. Wonderful to relate, however, and we may say that no one was more misled than the members of the medical profession, many of those persons with real or imaginary complaints who had resorted to the mental healers as a last resort, professed themselves cured and frequently gave substantial evidence of that fact. Then it occurred to the medical mind that perhaps there was *something* in the methods of the mental healers that was worth investigating, and efforts were made to study their methods and to find out what was true and what was false. To-day as a result of this investigation we are in a position to state positively that while the methods these people employ are largely based on frauds and misconceptions, many of their cures are real. We cannot take the time here to go into details as to how these cures are brought about, but it is sufficient for our present purpose to state that they are due to direct and indirect suggestion acting on the unconscious mind. The medical profession has at last realized the tremendous power which the unconscious mind exercises over the functions of the body and rapid progress is being made in the application of psychotherapy to the sick. Not only are we learning to utilize the therapeutic properties of suggestion, but we have discovered a triad of even more potent psychical influences, namely explanation, persuasion and re-education.

Psychotherapy is an agent capable of causing as much harm as it can do good and while comparatively few physicians yet understand its field and methods of application, nevertheless it is being extensively employed by medical practitioners and the results that are being attained far surpass those of any so-called "religious" cults that have come into existence during recent years. There can be no doubt but that the development of Christian Science, Dowieism, and similar bodies, have, in some localities, drawn no small proportion of people away from their physicians, but their attacks on the medical profession have moved it but little and with the growing knowledge of scientific psychotherapy among medical men the influence of the mystic forms of mental treatment are fading away.

Christian Science, that strange mixture of truth, mysticism and of fraud, has already reached its high-water mark, while it will no doubt leave a deep impression upon the therapeutic methods of the future, we do not hesitate to say that ten years after the death of its organizer it will be but a less remnant of a once active body.

To the Christian Church, however, the question of mental therapeutics has become a much more serious problem than it has to the medical profession. The success of the Christian Scientists in curing the bodily ills of many individuals naturally led such persons to entrust the welfare of their souls to the same organization. Thus a large and influential body of persons have been led to abandon the principles of historic Christianity and have fallen under the influence of the "divine mother," whose edicts have pronounced sin to be non-existent and the world, the body and disease to be mere phantoms of abnormal mentalities. How to prevent this exodus from the Church, therefore, has become a matter of no small importance. Rational presentations of the facts regarding Christian Science naturally fail, for how can reason be expected to influence those who close their eyes to the most evident and generally accepted phenomena of human experience? More recently the suggestion has been made that the Christian Church enter the field of psychotherapeutics and thus meet the demand that apparently exists in the minds of the people for the healing influences of religion. It is hoped by this means to offset the effects of Christian Science and allied cults.

Many of us, however, who are willing to concede the

ce that a calm and elevating religious faith may have in
venting and in aiding in the cure of certain diseases are
o means convinced that it is the duty of the Christian
ch to establish dispensaries and to publicly proclaim Her
tion and Her ability to cure disease, even of a functional
re, by means of mental treatment. This is a question that
ot be decided lightly and there is a great deal to be said
oth sides.

ersonally we believe it would be a serious mistake for the
ch thus to attempt to treat the sick. The Christian
ch is not a passing fad, founded on cunningly devised
s and organized for the purpose of increasing the per-
l income of a certain individual, and cannot afford to
Her influence by attempting to exploit a popular fad. For
inly if the Church should attempt the treatment of disease
fail to accomplish results equal to those of the Christian
tists, she would have to assume a second place, not only
e physical, but also as the spiritual leader of mankind.
brings up the question as to whether it is reasonable
ppose that the Christian Church could accomplish results
l or superior to those of the Christian Scientists? We
ve not, at least not so surely and effectively as the medical
ession could. We say this because the most powerful
e that the Christian Scientist brings to bear on a neurotic
ividual is the dogmatic positiveness with which he asserts
he will cure the patient. The Christian minister could
assume this dogmatism, and did he do so and fail to cure
patient, both he and the Church would be branded as a
option and a fraud. This would not only render it diffi-
for the minister to successfully treat the sick but would
usly hinder the real mission of the church, namely, the
tual welfare of mankind.

another practical drawback to the public treatment of the
by the Church would be the difficulty of selecting suitable
s. Manifestly it would be suicidal for the Church to at-
t to cure cancer, small-pox, gonorrhea and other forms
ructual and organic disease by mental therapeutics. Its
re would be confined largely to the so-called functional
ses. Now the differentiation between organic and func-
l disease is by no means easily made in many cases, and
with the assistance of physicians numerous mistakes would
made on this point which the Church, in the main, would

have to stand the blame for. When such cases were attended with disastrous results or even with the death of the patient, the newspapers would herald the facts far and wide to the great disadvantage of Christianity.

There can be no doubt, also, that the result of making mesmerism a treatment an integral part of the work of the Church would result in the development of a spirit of mysticism and would tend to attract individuals of a sensational and neurotic temperament and repel those of more stable and better balanced minds. In the words of the Rev. Dr. Joseph H. Crooker, "Only a bad result can follow from the addition of 'a mind cure' department to an ordinary church: a fresh crop of new ills and ailments; an epidemic of morbid and unwholesome conditions that will serve as prolific soil for all sorts of mental and moral perversities; the overloading of the Church with freaks, fanatics, who will divert its energies from sober tasks to fantastic occultism, and who will bring its work into disrepute by associating it with the grotesque and the visionary. Its peculiar psychic element is a very dangerous power to be let loose and let loose among the curious and the credulous. In the end we shall have more disease, more unhappiness, more mental derangement." [

Having stated the reasons why, from the standpoint of the medical man, it would be injudicious and dangerous for the Church to publicly undertake to conduct the treatment of persons suffering from either functional or organic diseases, we cannot close our remarks without referring briefly to the ways in which the influence of the Christian minister may be used to assist the physician in the prevention and cure of disease. First of all he should earnestly and faithfully endeavor to impress upon his parishioners the true meaning and value of the three Christian virtues—faith, hope and charity.

The mental attitude that may be attained by the contemplation and practice of these virtues is the greatest protection against functional disorders of the nervous system known to medical science and even in the presence of organic diseases the beneficent influence of faith and hope can be attested to by any practitioner of the healing art.

Second, the Church furnishes a field for useful and unselfish activity. It is a well-known fact that psychasthenia, neurasthenia, hysteria and other functional disorders of the nervous system frequently develop among men and women who

interest in life and who have little to do but to while away their time and spend their money. The mind thus deprived of normal interests and activities becomes self-centred and introspective, and is abnormally conscious of every physical sensation. Until this mental condition is overcome a cure is almost impossible and there is nothing more potent to lift the introspective neurotic out of the narrow confines of his selfish mentality than self-sacrificing and useful activity for the sake of his fellow men. For the Church to attempt to invade the field of the physician or even to attempt to establish a "mind cure department" for the treatment of nervous disorders would be unwise and ultimately harmful both to the souls and bodies of men. Her duty and Her opportunity lies in the inculcation and realization of the great truths that have been entrusted to Her and which if consistently and rationally followed lead to the highest development of man—physically, intellectually and spiritually.

THE LEGAL STANDING OF PHYSICIANS' ACCOUNT BOOKS.

ALL business houses are very particular that their book-keepers and accountants keep accurate records of all financial transactions with their customers. So thorough are the systems employed that any business man can go to the books and almost at sight determine the balance due on each account, and the nature of the transactions for which the charges were made. Unfortunately, physicians are by no means so particular as are business men. So carelessly do they keep their books that it is not uncommon for judges of orphans' courts (in Pennsylvania at least) to disallow claims in toto, claims made against estates of the deceased. One or two judges have gone to the extreme of declaring that physicians are extortionists. Several years ago, a prominent physician had his entire bill disallowed because his books were unsatisfactory to the court. This doctor treated his patients only by appointment and for the purpose of rendering some special service at each consultation. He kept a book which was known as his engagement book, in which was recorded the appointment, the nature of the operation, and the name of the patient. In due time this book was used for posting the accounts in the physician's ledger. A bill was rendered against a patient's estate, and duly protested by the executor. The doctor brought forth his engagement book as his "book of

original entry." The judge ruled that inasmuch as the record stated nothing but the service rendered and specified no charge, that therefore no charge had been made, and therefore the estate owed the physician nothing.

In another case, a physician presented his visiting list as his book of original entry. The court refused to admit it as evidence because a correct understanding of it could only be had by reference to a key explaining the symbols used.

The principle upon which these apparently unjust decisions are based lies in the fact that death has sealed the lips of one party to the contract. The law consequently seals the lips of the survivors, leaving only the books and the testimony of disinterested witnesses to tell the story. There is no reason whatever for physicians' carelessness. Knowing the legal requirements, they can and should keep books that satisfy the demands of the law. Unfortunately, the visiting list and the many copyrighted combination daybooks and ledgers are so time saving that they have become popular, and while the statements of the accounts as recorded in the same are accurate, they do not satisfy law.

What then is required is a book of original entry corresponding to the business man's daybook. In this should be recorded the following items: The name of the party again whom the charge is made; the person for whom the service was rendered; the nature of the service, whether office visit, home visit, special examination, surgical operation, etc.; and the price of the same. The entries must be made within a reasonable time after rendering the service, by reasonable meaning not more than one or two days.

This matter of business to which attention has been called is of more than ordinary importance. If lawyers and the public generally knew how lacking were the account books of physicians, we have no doubt that many, very many indeed, would be refused payment. Many men are so lacking in common sense that they are perfectly willing to commit a moral wrong under the shelter of a legal right.

The fact that some judges have admitted incomplete books as evidence does not alter the strength of our argument, for we know that there are other judges who insist upon the full legal requirements. This being the case, we should protect ourselves and our families so that which belongs to us by right shall be given to us by the courts.

GLEANINGS

RELIGIOUS PSYCHOLOGY.—Bishop Fallows discusses this subject in the March issue of the *Chicago Medical Reporter*. He states the object of the movement is to form societies for the purpose of teaching right and right thinking. It differs from the modern cults in that 1, it recognizes the reality of the mind and the body and the inseparable connection existing between them, while connected with the human organism; 2, it affirms the value of anatomy, physiology, bacteriology, histology, etc., as well as that of psychology; 3, it maintains the existence of a fundamental distinction between functional and organic disease; 4, it asserts the absolute necessity for the work of the physician; 5, as a proper department of medical church work it aids the poor and necessitous without commercialism. This movement comprehends the principles underlying all that is commonly known as faith healing, divine healing, mental healing, or any other form of unrecognized psychotherapy. He emphasizes the fact that it can only be carried out in co-operation with the medical profession.

PSYCHOTHERAPY: ITS METHODS, SCOPE AND LIMITATIONS.—The journal of the American Medical Association (May 16, 1908) contains an excellent symposium on psychotherapy by well-known medical authorities. Dr. W. K. Mills said that the story of psychotherapy is an old one, but it is being retold by new raconteurs, with a few additions of value, and with many trimmings and adornments. The terms psychic medicine and mystic medicine are not absolutely interchangeable. In a certain sense, mystic medicine—the medicine of the savages, of the oracles, of Mrs. Eddy, of the mediums of whatever sort—has in it the psychic element. It appeals to the imagination or the imagination of the individual, playing either on his normal or his abnormal suggestibility. The psychic medicine in which the physician should be interested continuously is one in which the use of mental suggestion for the relief or cure of disease is resorted to on the same scientific principles as is the use of water, medicine, electricity, the knife or the electric forceps.

The accepted psychotherapeutic methods of to-day were considered under three heads of: 1, The use of hypnotic procedures; 2, the appeal to suggestion in the waking state, and 3, the resort to educational or persuasive measures. Dr. Mills is of the opinion that suggestion in patients in the state of profound hypnosis should not be resorted to, except in a very few exceptional cases of hysteria, in which it should be used on the principle of "do evils choose the lesser." The use of suggestion in the waking state was commended, with some qualifications, however, as, like suggestion in hypnosis, it occasionally might result in harm. The suggester, however serviceable he may be to his suffering patient, does not always effect a permanent cure. The truth is not as DuBois expresses it, that one is cured as soon as he believes he is cured, but that he is cured when the

conditions which have caused and which tend to reproduce his sickness, have been removed. In this era of the exploitation of psychic medicine the community, and even the profession, have been confined beyond the confines of reason.

With regard to the admixture of religion and medicine for the purpose of healing, it should be said that in medicine, as in religion, faith is often essential. Harm is done, not alone to the community and to the medical profession by the psychotherapeutic efforts of enthusiastic but misled clergymen, but eventually to religion itself. Every neurologist of any considerable experience has had pass through his hands many cases of uncured disease in individuals of deep religious sentiments, who have called in their extremity on Christian Science or some similar healing cult, and who, failing to receive the benefit for which they have been led to hope, lost their faith not only in the efficacy of the cult to heal, but also efficiency in matters purely spiritual. The strongest and wisest opponents of osteopathy and faith cures and divine healing and all similar and non-medical therapeutic methods or organizations, are those who, by great promises consciously or unconsciously made, have come to be cared for and treated by those who only claim for themselves the powers which are given to them through scientific study and experience in disease.

Dr. Charles W. Burr referred to the value of the personal element in therapeutics and divided psychotherapeutics into: Education; encouragement; waking suggestion; suggestion under the hypnotic state, and the occult and mystical and, so-called, religious means of cure. He separated encouragement from suggestion, because in encouragement there is a logical talk with the patient, showing him his error in what he thinks about himself, showing him that his condition points to a cure. In making suggestion the attempt is made to act on the patient's "unconscious mind," causing him to create in his own mind without knowing that the physician has caused it, a feeling of well-being in the future.

In nervous conditions suggestion is regarded as one of the most valuable agents, but it is also considered to be capable of great harm.

Regarding the occult means of treatment, Dr. Burr believes that there is rapidly growing up in this country a superstition, intellectually as great as ever appeared in the world's history. The reason for this superstition is too deep a subject for present solution. While the basis of the occult means of treatment is suggestion, it differs from the suggestion used by the physician in that there is claimed for it some power outside the physician himself as being the thing that does the work, and in this, in a measure, it approaches the witchcraft of olden times. One evil of the practice of occult means is that persons who could be cured by physical means, if treated promptly, are rendered incapable of cure by the delay. As to the religious element in therapeutics, Dr. Burr believes it would be a very dangerous practice for a religious body to attempt the cure of sick people without constant medical advice.

A NEW METHOD OF DIAGNOSIS AND TREATMENT OF FISTULOUS TUBERCULOUS SINUSES AND ABSCESS CAVITIES. Emil G. Beck, in the *Illinois Medical Journal*, April, 1908, states that an accurate knowledge of the ex-

of these conditions may be determined by the injection of a bismuth lin paste into the fistula or sinus, and then making a radiograph of the . The method is not only of value diagnostically, but also therapeuti- y. The author claims that one or more injections will usually suffice to . The author uses two formulæ for his purpose; the first, for diag- s and early treatment, the second, for late treatment. The two for- ae are as follows: the first, bismuth subnitrate 30.0, vaselin 60.0. The nd, bismuth subnitrate 30.0, white wax 50.0 soft paraffin 5.0, vaselin

In some cases 1% formalin is added. The sinus or fistula is oughly dried before the injection is made. The first formula is em- ed until the purulent discharge ceases. The author has tried this method 4 cases, most of which were tuberculous. All were cured within a t period.

FUNCTIONAL DYSPEPSIA.—Hutchison (*British Med. Journal*,) divides tional dyspepsias into four forms, corresponding to the four physio- functions of the stomach, viz.: 1, secretory; 2, motor; 3, sensory, and sorptive. The last being a limited function, is dismissed. Functional epsias, therefore, fall into the following classification:

Secretory.—Excess: hyperchlorhydria and hypersecretion.

Defect: hypochlorhydria and achylia.

Motor.—Excess: pyloric spasm.

Defect: atony and motor insufficiency.

Defect: (?) anorexia and diminished capacity.

Sensory.—Excess: hyperesthesia.

ny one of these forms may occur alone, but frequently one finds two ore coexisting. Hutchison discusses the treatment of each form in de-

In excessive secretion the indications will be best met by a regimen which milk, eggs, meat and fish enter freely, while the starchy foods kept within strict limits. Medicinally, neutralizing drugs, of which the hy oxids (magnesia is to be preferred) should be given when the secre- is excessive, i. e., about two hours after meals. In defective secretion actual composition of the diet is indifferent, provided it be given in a ble mechanical form. Medicinally, the indications are to stimulate natural secretion or to replace it artificially. The bitters effect the first alone, or with small doses of sodium bicarbonate. The second, theo- cally, would be attained by administration of ferments, but in practice has proved to be almost worthless. Full doses, say $\frac{1}{2}$ a dram (2.0) of the dilute hydrochloric acid, after meals, are sometimes of service restraining some of the secondary symptoms, e. g., "gastric" diarrhea. he excess form of motor disorder the dietetic treatment must consist ly of milk, supplemented by soft, farinaceous foods; medicinally, an- ds, bismuth, antispasmodics, e. g., carminatives, and especially opium in ll doses before meals, are indicated, with local formentations, etc., to epigastrium. Motor defect calls for avoidance of all hard, tough, indi- ble food, and of fluids, the diet being dry; medicinally, muscular tonics indicated—strychnin, alcohol, minerals acids, certain aperients, particu- r aloes. Massage, perhaps electricity, and hydrotherapeutics are useful sures. Anesthesia is the only sensory disorder of which we have any wledge. Blandness should be the characteristic of the diet, while icinally we have many gastric sedatives, especially bismuth, the bro-

mids, hydrocyanic acid, hyoscyamus, cannabis indica, chloral and form. Also the local application of heat is useful here also. While lines will not always be successful, Hutchison holds that this is the way of approaching this disorder that can be called rational and scientific.—*Jour. A. M. A.*, May 16, 1908.

RECTAL "DON'TS."—Don't take anything for granted—see for yourself.

Don't take it for granted that a patient is suffering from hemorrhoids simply because he tells you so. He may have the piles; but he may have something more serious.

Don't move the bowels for eight days after a "Whitehead" operation.

Don't treat a patient for prostate trouble, without first eliminating the cause. Fissure in ano very often causes retention of urine—or the reverse—frequent urination.

Don't decide a patient is suffering from flights of the imagination simply because he tells you that he must move his bowels, following a hemorrhoidal operation. It is well to make an immediate examination, in such cases, to see if the patient is possibly having a hemorrhage.

Don't, necessarily, be alarmed when a patient has a rise of temperature following a rectal hemorrhage, for it will probably subside in a few days. However, it is well to keep careful watch, as it may mean infection.

Don't prescribe for a patient with diarrhea, without searching for the cause; for it may mean a malignant condition. Diarrhea is one of the earliest symptoms of cancer.

Don't take it for granted that a patient is suffering from bleeding hemorrhoids just because he passes blood every time he has a movement of the bowels, because he may be suffering from prolapse of the sigmoid, ulceration of the sigmoid, or cancer.

Don't advise an operation for the relief of hemorrhoids without first eliminating cancer, cirrhosis of the liver, and stricture.

Don't advise an operation for the relief of hemorrhoids in a patient suffering from tabes dorsalis. If you do you will spend many a sleepless night trying to stop the hemorrhage. Moreover, these cases are never relieved by operation.

Don't be alarmed if diarrhea follows an operation around the rectum, which you are using dressings of balsam of Peru and castor oil, and if the medication sometimes produces diarrhea. Stop using it and substitute ichthyol, and the diarrhea will subside.

Don't forget to give your patient a hypodermatic injection of morphine after a rectal operation, before he comes out of the anesthetic. It will prevent a good deal of suffering, as the chances are that the pain will not be so severe by the time the morphine has worn off, and the patient will not be so restless as he has had an anodyne. If the patient is given morphine after he has come out of the anesthetic, he will often insist on its being repeated and will not be kept up. You are then in trouble to eliminate it from the system.

Don't remove the first packing, after an operation for fistula, till forty-eight hours have elapsed.

Don't treat all cases of constipation alike. Some need drugs; some, enemas, and still others require operation.

Don't forget prolapse of the sigmoid, if a patient gives a history of

onic constipation and has periodic attacks of severe griping pain, followed by the passage of blood. These cases are generally relieved, for the being, by enemas, given in the knee-chest position.

Don't give a cathartic for two weeks following the closure of an artificial anus; you may have to do a resection, if you do.—Jerome M. Lynch, D., *Amer. Jour. of Surgery*, May, 1908.

THE TREATMENT OF GLAUCOMA.—Let us first make clear that two forms of glaucoma are encountered. First, the acute, inflammatory form, which comes on very rapidly, with greatly increased tension and rapid loss of vision, even to complete blindness within, possibly, twenty-four hours. Second, the non-inflammatory form or, as often described, glaucoma simplex. In this the condition is one of very slow progress, requiring months or years to lead to blindness. No inflammation, no pain, very slight increase in tension. Now, in acute glaucoma, all authorities agree, that if myotics are not rapidly efficacious (within two or three days) in relieving the pain, the tension and improving the vision, then operation must be resorted to.

On the contrary, in noninflammatory glaucoma, authorities are divided as to the value of operative measures. Some years ago it was the almost universal custom to operate these cases as a routine practice, but in the few years many of the best authorities are advising the continued use of myotics rather than operations. For the last ten years I have followed the plan of using myotics, electricity, massage, etc., and the homœopathic remedy in every case, and only resorting to operation as a last resort, when after long and thorough treatment, as above, the disease steadily progressed toward blindness.

Operation seems to rarely check the disease, and in some cases more rapid blindness follows. As to the homœopathic treatment. When one realizes that the vision may be completely destroyed in acute glaucoma within twenty-four hours from the increased pressure within the eye, that permanent blindness results if this pressure is not relieved within two or three days; when we know that operation will instantly relieve this pressure, and that myotics will frequently do so, one is not warranted in trusting to internal medication alone. Furthermore, as the cause of acute glaucoma is probably in the majority of cases a mechanical one, it must be counteracted by mechanical measures. Frequently all have seen attacks of acute glaucoma controlled by myotics, together with homœopathic remedies, and as we have no evidence that internal medication alone will do so, as the disease is so serious and rapid, there seems little prospect of saving the value of our remedies in this form of glaucoma.

In the noninflammatory form of glaucoma, we believe one is warranted in experimenting with homœopathic remedies alone, because, as already pointed out, this form usually slowly progresses for months or years, and because good authorities have claimed that operations are absolutely useless in this form of the disease, while other equally good authorities have claimed that myotics are of no value whatever. Personally, I have never tried, but felt justified in trying, our remedies alone, because I am convinced that myotics are of value. I believe that a carefully selected remedy materially contributes to the successful treatment of the form of glaucoma and am

no more willing to give up their use than I am the use of the myotics.—
Dr. A. B. Norton, New York, *The Homœopath. Eye, Ear and Th. Journal.*
WILLIAM SPENCER, M. D.

MYOPIA WITH CORNEAL OPACITIES.—According to recent reliable continental statistics, in at least one-third of the cases in which they are present, central corneal opacities produce myopia, although this average is likely higher than that found in American ophthalmic practice. The myopia is axial and not dependent on alteration of the corneal curve. Ophthalmometric examinations do not show any significant differences between the corneal curvature of myopic eyes with corneal opacities and similar eyes in which the refraction is emmetropic or hyperopic. The mechanism of the production of the myopia is analogous to that of the common form following astigmatism, anisometropia, etc., with the added predisposing factor of weakened ocular tunics by previous inflammation.

The association of disturbance of the choroid and retina of the posterior segment of the eye ball with inflammations of the anterior chamber is an important element in further reducing visual acuity in these cases. For a similar reason extensive fundus lesions are common, and the myopia is more likely to become progressive than ordinary.

In case of unilateral opacity the myopia may be single or double. In such cases the myopia is unilateral, it may appear either on the sound or the affected side, but no definite rule can be established in this connection. When the myopia is unilateral, it often occurs in the eye with the least opacity. The cases of unilateral myopia are strongly suggestive of the importance of ciliary strain rather than excessive convergence in myopia genesis.

In view of the strong possibility of resultant myopia, all cases of corneal disease, particularly the phlyctenular affections of childhood, should receive prompt and continuous treatment, and prophylactic measures should be rigidly followed to prevent recurrence. After the subsidence of inflammation energetic treatment should be adopted to clear up the opacities. Of greatest importance in the prevention of the subsequent myopia is careful and repeated refraction of both eyes under artificial cycloplegia employing both objective and subjective methods, and the constant use of correcting lenses. All errors in ocular, personal and domestic hygiene that encourage the development of myopia should be corrected, and the patient should be kept in the best physical condition and most salutary environment.—*The Homœopath. Eye, Ear and Th. Journal.*

WILLIAM SPENCER, M. D.

HERPES SIMPLEX AND HERPES ZOSTER.—In the *Jour. Am. Med. Assn.*, F. Schamberg discusses herpes simplex and herpes zoster, concluding that both varieties, both facial and genital are closely related while not clinically identical. He further concludes that the greater number of cases of herpes probably result from a toxin. It is probable that this toxin must contain certain qualities in order to manifest itself on certain sensory nerve structures, accounted for by its frequency in certain infectious diseases and rarity in others. The toxins which produce herpes are probably not the result of the action of any definite micro-organism. Pneumonia, malaria and spotted fever are probably the three diseases in which this herpes producing toxin develops. It is therefore of diagnostic importance for the

that it is comparatively rare in typhoid fever, and other infectious dis-

Before giving herpes the diagnostic importance referred to, it should be taken into consideration that certain persons are subject to recurrent attacks of facial herpes.

RALPH BERNSTEIN, M. D.

THE ACTION OF SCOPOLAMIN-MORPHIA IN LABOR.—Steffen (Dresden) says the action of scopolamin-morphia in obstetrics has been much discussed. The experiments were made with this compound after the appearance of Ambuchel's article in 1903, but it was soon abandoned after some unfavorable experiences. The favorable results in 500 cases reported by Gauss called attention to it. Steffen used the preparation in 300 cases. Scopolamin is a narcotic known for many years, and its secondary effects have been well described by Lewin. According to him it acts violently and dangerously, and is to be regarded as a narcotic whose action cannot be predicted. The secondary or accompanying effects occur in 25% or even in 50% of cases. More people are badly affected by it than favorably. Very small quantities may induce bad effects. Some of these are flushing of the face, dryness of the throat, and difficulty or inability to swallow, diminished, irregular, difficult, stertorous breathing; pulse at first slowed, later accelerated, irregular and full; sense of faintness, syncope with or without convulsions, collapse and death even from one milligram. Even on the day following its use as a narcotic the patient may be giddy, have some motor disturbance, and slight paralysis of the pharyngeal muscles. Some of the bad effects are modified by the addition of morphia. After fully considering the use of this compound narcotic, the author concludes that we cannot ascribe to it an ideal action, for it is unsatisfactory in its desired results, is not without danger to mother and child, and is not to be recommended in private practice especially since its uncertain attendant effects require it necessary that the physician be constantly accessible.—*Arch. f. Gyn.* Vol. 81, 451.

THEODORE J. GRAMM, M. D.

THE TREATMENT OF CHRONIC DISEASE OF THE ADNEXA.—Esch (Berlin) describing of the methods pursued in Olshausen's clinic says that these operations are only operated after the failure of other conservative therapeutic measures, and especially in pyosalpinx only during the interval of the attacks and about nine months after the original infection. At the operation the adnexa are either removed by applying three ligatures to the broad ligament so that free stumps remain in the abdominal cavity, or the method of Henkel is used, which consists in removing the interstitial portion of the tube from the uterus and the mesosalpinx incised beneath the ovary. The ovarian artery is separately ligated, and the peritoneal wound closed with continuous cat gut suture. The abdominal cavity is never closed even after pus has soiled it, but care is taken to have the abdominal cavity absolutely dry before closing it. Drainage was only used in 10 cases. They treated 83 cases in this manner, with a mortality of 7.2%. Careful examination of the cases showed that in 53 operated so that free abscesses remained an exudate formed, while in 20 cases operated according to Henkel's method an exudate formed only once at the site of the operation.—*Zeitschr. f. Geb. u. Gyn.* Vol. 59, 1.

THEODORE J. GRAMM, M. D.

THE DOCTRINE OF ENDOMETRITIS.—In an important article when Hitschmann and Adler (Vienna) consider this entire subject, they conclude as follows: Endometritis glandularis hypertrophica and endometritis glandularis hyperplastica have nothing to do with inflammation. Endometritis glandularis hypertrophica does not represent a pathological change of the uterine mucous membrane, but represents the premenstrual state of the normal uterine mucous membrane. Endometritis glandularis hyperplastica partly comprises normal premenstrual conditions, partly variations in the number of glands quite within physiological limits; but besides this there is a glandular hyperplasia of the uterine mucous membrane which however is entirely independent of inflammation.

There is only one form of inflammation of the uterine mucous membrane, namely, endometritis interstitialis, or merely endometritis. The processes of inflammation occur in the uterine mucosa, similar to inflammation of other organs, in the stroma. According to this the teaching concerning endometritis is divested of its artificial peculiarities and is placed upon a general pathologico-anatomical basis. The diagnosis of endometritis rests upon the demonstration of the infiltrating cells, the characteristic plasma cells.—*Zeitschr. f. Geb. u. Gyn.* Vol. 60, 63.

THEODORE J. GRAMM, M. D.

THE HEALING OF WOUNDS IN ABDOMINAL SECTION.—From some experiments directed to determine the conditions surrounding the healing of wounds in abdominal section, Pankow (Cologne) finds that excoriation of the parietal or visceral peritoneum without hemorrhage in the abdominal cavity leads mostly to smooth healing of the wound, and only occasionally to the formation of adhesions; and the same is true when only one surface, either visceral or parietal, of peritoneum is injured. Wounding of both parietal peritoneum and punctate hemorrhage, as occurs especially in laparotomy, often leads to adhesions. The healthy peritoneum offers greater resistance for the animal than a wounded peritoneum treated with the thermocautery or with absolute alcohol. Most unfavorable for the animal as regards infection is a wounded peritoneum untreated. Adhesions almost always occur after infection of the abdominal cavity. Practically therefore, it appears advisable from animal experiments that wherever diffuse, bleeding wound surfaces exist, to stop the hemorrhage, and if the latter cannot be covered with peritoneum to treat them with the cautery with absolute alcohol, in order that the danger from infection may be diminished.—*Monatsschr. f. Geb. u. Gyn.* Vol. 26, 172.

THEODORE J. GRAMM, M. D.

BACTERIOLOGICAL EXAMINATION OF THE CONDITIONS SURROUNDING MODERN LAPAROTOMY.—Hannes (Breslau) in summarizing the results of his investigation says: The wounds made at the operation are threatened by bacterial invasion from the hands of the operator and his assistants, from germs in the patient's skin, and from those suspended in the air of the operating room. The possibility of bacterial invasion from the hands may be entirely excluded by the use of rubber gloves upon the disinfected hands. It is no doubt possible in a large number of cases to exclude the risk from the neighboring skin of the abdomen, especially in short operations. Gaudanin (a solution of rubber) is more convenient

rubber sheets, and seems to have numerous advantages over the latter. It may be assumed that occasionally infection may take place from air in the operating room. Operation wounds undoubtedly containing bacteria may clinically heal perfectly. The sources of failure of asepsis may be minimized by means of stricter methods applied to the minutest details.—*Zeitschr. f. Geb. u. Gyn.* Vol. 60, 1.

THEODORE J. GRAMM, M. D.

NEVUS TREATED BY RADIUM,—*Societe Medicale de Hopitaux*. Sitting of 31st of January. Masotti has treated several cases of nevus by radium. He gave us the result of his experiments on the healthy man. A small apparatus containing 0.04 of sulphate of radium was placed in contact with the skin of the forearm for an hour. The next day the part exhibited an erythema, followed eight days after, by desquamation. As a result of an application of two hours, an eschar was formed at the end of five days, which dropped down after two weeks, leaving behind a slight permanent atrophy. In cases of angiomatous nevus, and even of nevus highly prominent, a great improvement was noticed, at least, the discoloration was evident.

The treatment consist in repeated applications, four or five times with intervals of two or three days. A small eschar is formed, which when detached leaves a discolored spot. In men the application should last one hour, or one hour and ten minutes; in women not so long. The more delicate and finer the skin the more intense the reaction.—*L'Art Medical*, Fousset.

EDWARD FORNIAS, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

THE ELECTRONIC THEORY.—Health is the maintenance of a normal balance between the positive and negative electrons, or a normal vibration.

Life itself is dependent upon the maintaining of this balance within certain limits, otherwise proper food cannot be taken by the cell or a proper metabolism maintained and it dies.

These briefly are the theories of "Vibration" founded upon the well established theories of matter. For the "therapeutics" one must read Dr. Woodruff's book. It would seem as though these theories again most beautifully illustrate Hahnemann's law and his principle of prescribing remedies. The vibration theory of matter be true, it would seem as though certain drugs have affinity for certain tissues, because the electrons of their atoms vibrate at a similar rate to the electrons of the cells of those tissues, and hence are attracted. Disturbances of metabolism in a certain group of cells produces certain symptoms characteristic of the affection. The only elements which can produce those same symptoms obviously are those which can affect those cells; others are not attracted and hence are without influence. (Law of similars.) Again, if two elements vibrate so nearly alike that they are both capable of being attracted, in perhaps a slightly different degree, by the same cell (i. e. therapeutically speaking, can produce similar symptoms) they must also in their elemental state attract each other and so enter into a chemical composition whose atoms contain positive and negative electrons in an altogether different proportion, and hence vibrate at a different rate. Evidently the new composition is not attracted by the cell which attracted the two original elements (antidotal action of two remedies closely similar).—*Medical and Surgical Reporter.*

APPENDICITIS.—One fact is patent, and that is, the prevalence of appendicitis came into notice contemporaneously with the coal tar products. Can it be that these agents set up a latent poisoning of the mucosa of the cecal region which ultimately results in suppurative inflammation in the cecum and its appendix?

It seems as though this might be a pertinent question, considering the relationship. The actual cause of appendicitis has not yet been satisfactorily settled. Bacteriologists have found several different forms of minute organisms about such foci or inflammation, but nothing which might not be found in any other ulceration of the lower bowel, and which might not

is a sequence, rather than a cause. It is hardly to be believed that these organisms have begun any new tricks in recent years.

The use of coal tar products has been too common within the appendicular pouch. It has doubtless caused many collapses from cardiac insufficiency; has it not caused other troubles quite as serious? The suggestion might be worthy of consideration and further study. Observation and inquiry on the subject might be worth while.

The writer would not like to be quoted as making the assertion that the many cases of appendicitis occurring nowadays are blamable to the action of the coal tar products. This would be too aggressive altogether, considering his knowledge in the premises. However, his personal observation enables him to assert that the prevalence of appendicitis at the present time is not due to advanced discrimination on the part of the profession.

He is confident that it was once a very rare disease. It is no discovery due to professional acumen, but an unfortunate condition which has forced itself upon us in modern time. About the time of its advent another unfortunate disease came upon us—the coal-tar habit.—Webster, in *Eclectic Medical Journal*.

TREATMENT OF GLAUCOMA.—By A. B. Norton, M. D., New York. Let us first make clear, that two forms of glaucoma are encountered: First, the acute inflammatory form, which comes on very rapidly, with greatly increased tension and rapid loss of vision, even to complete blindness within, possibly, twenty-four hours. Second, the non-inflammatory form or, as often described, glaucoma simplex. In this the condition is one of very slow progress, requiring months or years to lead to blindness. No inflammation, no pain, very slight increase of tension.

Now, in acute glaucoma, all authorities agree, that if myotics are not rapidly efficacious (within two or three days) in relieving the pain, redness and tension and in improving the vision, then operation must be resorted to.

On the contrary, in noninflammatory glaucoma, authorities are divided as to the value of operative measures. Some years ago it was the almost universal custom to operate these cases as a routine practice, but in the last few years many of the best authorities are advising the continued use of myotics rather than operations. For the last ten years I have followed out the plan of using myotics, electricity, massage, etc., and the homœopathic remedy in every case, and only resorting to operation as a last resort, when, after long and thorough treatment, as above, the disease steadily progressed toward blindness.—*The Hom. E., E. and T. Jour.*

WE STAND AND SIT TOO MUCH, declared recently Dr. Gelbke before a body of German physicians. Chairs were known to the ancients, who used them, however, only on extraordinary occasions; cultivated persons then took their meals and their rest reclining. The bad effects of the sitting habit have not been sufficiently emphasized, although the remarkable cures effected by rest are well known. The merchant or the professional man who sits all day should recline or take exercise in the evening. The American rocking-chair receives Dr. Gelbke's approbation. To this day primitive peoples prefer the reclining to the sitting posture; and their figures, which are better and more supple than ours, are accounted for in this way,

and because they lie, not on their backs, but on their stomachs. No late in the Middle Ages, when the change of posture at rest was reclining to sitting, do we find in pictures the fat human being.—*The cal Times*.

TREATMENT OF NERVOUS AND MENTAL CASES.—By O. A. Palmer, Ph. D., Cleveland, O. I cannot close this paper without mentioning general principles that must be observed in making up a successful treatment. After the causes are all removed and the best medical and surgical attention has done its work, the proper exercises and the normal amount of oxygen should be enjoyed by every case. In all the cases that I have treated for several years where I have had the privilege of using the spirometer, I have found that the nervous system has suffered to a great extent from the want of oxygen or in other words from sub-oxygenation, and produces a condition of the nervous system that can not be benefited by surgery or medicine. I think of the chest exercises and gradually increase them until the spirometer shows that the case is getting the normal amount of oxygen. The exercises should be gradual. If they are unaccustomed, take their own exercise certain forms of massage and light exercises should be given until they are able to take their own.

So far as remedies are concerned it can be readily seen from what has been said that they should be selected according to the conditions that exist in each case.

"STAMPING OUT."—The Illinois State Board of Health has issued a nice 60 page pamphlet for free distribution to the public on "The Cause and Prevention of Consumption." The Board, of course, knows all about the subject else they, or it, would not have printed the pamphlet. The thing is boiled down into four words, which are scattered throughout the pamphlet in black caps. "No spit, no consumption." This is a fine demonstration of how really simple some science is. Down in Texas Dr. Schroeder tells the public that the "dangerously tuberculous cow" should present all the appearance of health, be sleek, eat well, sleep well (probably) and do all that a well regulated cow should, and yet be a "menace" to the community by means of butter, milk, cheese, Hamburger steaks, and so on. Schroeder does not cry out "NO SPIT, NO CONSUMPTION;" he does in the most convincing and scientific manner, advocates the use of the "tuberculin test" to detect the complacent cow who is sailing under false colors. Tuberculin is a "culture" of the tubercle bacilli, which was originally used to cure consumption in human beings, but as injecting the cultured tubercle bacilli among the uncultured tubercle bacilli didn't seem to cure, but to do otherwise, this scientific procedure was given up. The tuberculin was now transferred to cows, and the cultured bacilli was put into the blood to see if there were any of their uncultured brethren within, and behold, all the "blooded" cows, the fine and pampered breeds, "reacted" and became feverish, when the cultured bacilli poison was injected into the aristocratic blood and science exclaimed that they were consequently tuberculous. Then along comes Koch, and he says there can be no consumption transmitted from cow to man. And all this time the public looks on as an ignorant and respectful, as behooves the unscientific. And now we hear from the Illinois Health Board, the tuberculin scientists and Koch. From

sense point of view the "no spit, no consumption" cry is simply a
 y man, and the board are to be pitied if they believe it, and any heal-
 rganization must surely "react" against the injection into it of a vile
 se poison. Koch is right.—*Homœopathic Envoy*.

INE.—By A. L. Blackwood, M. D. This agent was discovered by Cour-
 of Paris, in 1811. It was so named from iodes (violet color) on account
 s vapor. It was found both in the vegetable and mineral kingdoms.
 resence has been demonstrated in every organ of the body. The
 id contains the largest amount, the entire gland averaging 4.535 mg.
 ese localities where cretinism is endemic, the whole gland contains,
 a average, but 1.545 mg. It is interesting to know that in those lo-
 es in which goitre is endemic there is but the smallest amount of thi-
 in the drinking water. It possesses marked antiseptic power and has
 property of neutralizing bacterial toxines. Experiments on animals
 shown that it causes great activity of the cells of the spleen and other
 s without necrosis. It causes a disappearance of the eosinophilia.
 e observations demonstrate that its action consists in stimulating heal-
 reaction and not by an alteration of the poison.

en it is applied locally to the skin or mucous membrane it acts as an
 nt, and, if applied frequently, is a caustic. It stains the tissues a
 wish brown color, and, combined with the albumen of the tissue, pro-
 exfoliation of the epidermis and vesication.

en the vapor is inhaled it acts as an irritant to the air passages and
 gh its action upon the secretions of the respiratory tract, prevents
 nposition.

en small doses are introduced into the stomach it stimulates the
 ite, assists the digestion, stimulates the secretions and excretions and
 ols nausea and, as a result, metabolism is improved and the strength is
 used.

en its use is continued over a prolonged period or large doses are
 istered, salivation and general discomfort are produced, with colicky
 ninal pains and, in certain cases, nausea and vomiting result, and
 ia and emaciation occur as a result of the rapid elimination. It also
 s into combination with the products of syphilitic diseases, lead and
 ry, within the system and hastens their elimination.

cessive doses cause death by producing a severe type of gastro-en-
 , and, accompanying this condition, there are extreme pallor, irrita-
 of the kidneys, and later, suppression of the urine and rapid and
 heart action.

ere is a certain group of symptoms to which the term iodism is applied,
 is the result of the saturation of the system with this agent. They
 mental depression, frontal headaches, ptialism, a salty or metallic taste
 e mouth, difficulty in swallowing, impotency, which is usually of but
 porary character, and an eruption over the face and limbs of an acne,
 cular or purpuric form; together with these are the increased
 nation and anemia and marasmus mentioned above. In those cases in
 a ptialism results there has been a saturation of the system by mer-

The iodine simply liberating the mercury, enables it to produce its
 titutional effects.

ere is possibly no remedy which has more decided action upon the

whole lymphatic and glandular system than has iodine. This action is most apparent upon the thyroid, mammæ, ovaries, testicles and mesenteric glands. Under its influence they are all, at first, stimulated to increased action, as indicated by congestion of the ovaries, together with an increased menstrual flow; the testicle and reproductive organs of the male are stimulated, as indicated by increased sexual desire; the salivary glands are stimulated, the saliva is increased, the liver is similarly affected and, as a result, the biliary secretion is increased and thus the whole glandular system is affected by it. But this condition of over-stimulation is soon followed by a reaction of such magnitude that the subject becomes emaciated, as already outlined. Some patients are exceedingly sensitive to its action, so that in connection with the above symptoms, they complain of impaired vision, paresis, mental distress, muscular debility and atrophy of the glandular system and loss of sexual power. Ziemssen, writing on the subject of the changes that affect the mammary glands, under the prolonged use of excessive doses of the iodides, says, "Cases are constantly occurring from time to time in which atrophy of the mammary gland is unquestionably an effect of the iodine treatment."

While the type of the patient in which iodine is indicated varies, in many cases he is what has been termed, of the scrofulous diathesis, has dark hair and eyes, is greatly emaciated and complains of profound debility. The appetite is usually good, but digestion and metabolism are so impaired that he is constantly losing flesh.

The prominent feature of its action is the power of causing absorption. As a result of its influence, the absorbents are stimulated, and adipose and glandular tissues waste away, and emaciation results. New growths, when present, are the first to be affected, while hyperplasias, swollen and deformed joints, scrofulous and syphilitic indurations, effusions and tumors come under its action.

Iodine is frequently of service in the chronic headaches of the aged and scrofulous subjects. In many of these patients there is evidence of arterial sclerosis. The patient usually gives a history of a gradual emaciation, with glandular induration and symptoms of delayed gastric and intestinal digestion and absorption. The bowels are constipated and he complains of mental depression, and finds that he is unable to carry on a line of thought without effort. The headache is worse from motion, which causes a sensation of throbbing; it is also worse when he is confined to a close, warm room. . . . —*Medical Century*.

WINE AND ARSENIC.—The Paris Academy of Medicine have been discussing whether the prevalent use of arseniate of lead to destroy insects and mildew on vines is to be deprecated, as in consequence traces of both metals appear in the wine derived from such vineyards. Dr. Cazeneuve, who introduced the subject, maintained that after six months' use of wine with even so small a quantity as one-thousandth of a milligramme of arsenic per litre, poisoning symptoms would occur. It is interesting to recall that Samuel Hahnemann, long before the days of homœopathy, invented a wine test to distinguish iron in wine from lead, which brought him much gratitude from the honest wine growers, who previously were apt to be confounded with the dishonest ones who used sugar of lead as an adulterating agent.—*Homœopathic World*, April 1, 1908.

PERSONS WHO ARE SENSITIVE TO THE VAPORS OF PAINT, or, what is the same thing, to the turpentine and oils contained in the paint, are well advised to resign their homes until the drying influence of the air has dissipated the volatile oils. Turpentine, even in the form of vapor diluted with air, undoubtedly affects the health of some persons, the disturbance manifesting itself in the shape of giddiness, headache, deficient appetite and anemia. There are headache, vomiting, swelling of the tonsils, albuminuria, and a marked rise in the temperature apparently due to an exposure to the emanations of wet paint for nearly a fortnight. That such a case could now and then arise is not surprising when regard is paid to the toxic effects which turpentine vapor is capable of setting up. Turpentine, in short, is a poison, and cats and rabbits are so susceptible to its action that if kept exposed to its vapor for some minutes they exhibit marked toxic symptoms ending in death, if they are not removed from the sphere of action of the vapor. Personal idiosyncrasy, however, is clearly an important factor, for many persons and probably the majority do not seem to be affected by turpentine vapor to any serious degree. A very sensible precaution during the painting season for those to take who are compelled to endure the nuisance, is to leave bowls of water in the freshly painted rooms. Some, at any rate, of the paint emanations are thus absorbed, as will be seen by the oily film on the surface of the water so exposed. An even more powerful absorbent is fresh milk, which reduces the smell of paint in a room in a remarkable way. The poisonous effects of paint emanations do not appear to be connected in any way with the lead contained in the paint, the colic of painters being due to the actual contact of the person with the substance of the paint.—*The Lancet*.

[So much, at least, for *olfaction* by the minority when *inhalation* by "the majority" of persons does not count.—J. H.]

WHAT HOMŒOPATHY HAS DONE FOR PEDIATRICS.—By C. S. Raue, M. D., Philadelphia. . . . From the very beginning, therefore, one of the strongest arguments that has ever been used against homœopathy, namely that it is nothing more than therapeutic nihilism or a form of faith cure or hypnotic suggestion, has received its strongest refutation in the results obtained in treating sick children. If these results could not be attributed to drug action, but were purely psychological, I should like to know how you would get psychological effects in a psychologically immature infant. Furthermore, the effect of homœopathy has been far-reaching in its influence upon the practice of the old school. In the beginning of homœopathy allopathic treatment was entirely different from what it is to-day. At the present time the leading minds of the old school are strenuously opposing the methods that were in use at that time. The leading old school teachers in pediatrics are advocating as little medicine as possible. They are advocating the use of the single remedy for definite effects, but they overlook the fact that these reforms are due more to the influence of homœopathy than to any other single factor. Of course, they have advanced considerably. We must give them credit for having placed the problem of infant feeding, for example, upon a firm scientific basis. However, what good they have in their therapeutics most evidently is really from our own sources. Take, for example, the action of phosphorus in markets of which they speak so highly. You will find in certain works on

pharmacology that phosphorus has been given to young puppies for a continuous certain length of time, and that the bone changes which were produced by the continuous use of phosphorus have been carefully studied and were found to be quite similar to the bone changes we find in rickets in children. Just why they use phosphorus after making that statement we know, but probably they do not. Then we have men like Hobart Hare recommending podophyllin in acute entero-colitis in infancy. I might cite example after example of that sort—merc. cor. in dysentery, and others.

You will find, then, that these main reforms which have occurred in the practice of pediatrics in the old school have simply followed years after Hahnemann had pointed out the way to them and practiced them. Hahnemann was perhaps one of the first to point out the importance of diet and hygienic conditions and surroundings in restoring the health of sick children, the use of drugs being purely secondary, a drug simply being required to stimulate the organism and bring about a restoration to health through the natural channels. . . . —*The New England Medical Gazette*.

LONGEVITY.—Once upon a time in a little New England town a peaceful centenarian lay breathing his last. When gently requested to explain to four generations present at his bedside the secret of his longevity, he said with a positiveness born of strong conviction, "I never was d—d glad nor d—d sorry for anything in all my life." In other words his Rx was equanimity seasoned with mild profanity, one which we fear would prove difficult to follow nowadays in the strenuous life of our great cities.

That anyone lives to be sixty in Chicago will no doubt be denied by poor New York and jealous Paris. But the writer swears on his honor as an editorial writer that several men of such advanced age have been known by him here and questioned as to how they managed it. "One of our very best people" gave as his opinion the following, voicing it carefully, however, and in general terms: "The secret of longevity is to be found in the drinking of gin. Of course it is dangerous to drink too much gin, but it is also dangerous to drink too little gin. On the whole it is more dangerous to drink too little gin than too much gin." No doubt this tribute to a deserving diuretic would be loudly applauded by our Afro-American brethren were they called on by us to give their opinion, and there is room for much scientific investigation along this line on the part of all of us.

One thing we notice in a rather extensive census of longevity reasons and that is under no circumstances is any physician given credit for having had anything to do with it. In fact, one of Chicago's most eminent citizens gave as his "reasons," that he had never consulted a doctor nor taken any medicine in his life. It was with difficulty that he could be restrained from climbing a telephone pole in order to demonstrate clinically, as it were, what sixty-two years of abstinence from doctors would do for a man in the way of promoting vigor and spryness.

And now comes a world-famous clergyman who says that the secret of longevity is to be found in "the drinking of buttermilk and the loving of God and fellowman." The combination is a difficult one but we highly approve of it and recommend it boldly over our priceless autograph.—Clifford Mitchell, M. D., in *The Clinique*.

THUJA—A CLINICAL CASE.—By E. A. Taylor, M. D., Chicago. Mr. G., age 23. Intermittent fever. A year ago was living in the South, where he had intermittent fever which still continued notwithstanding the liberal use of quinine and its alleged specific action on the intercorpuseular hæmatozoa.

Symptoms:—Chill every other day at 2.30 P. M.; begins in the knees and is accompanied with a desire for cold water. Feels best in a warm room near fire; wants left side to radiator; knees get cold and weak, can hardly walk. After the chill has lasted some time gets a severe headache across the eyes and temples, "feels as if struck a stunning blow on the head." The chill is followed by sweat without previous heat except the face which feels hot all the time but is not red. He sleeps during the sweat which is profuse and relieves the headache which accompanies the paroxysms. He has given Thuja 1m. The next paroxysm was very light and he had no more.

The chill beginning in the knees, with thirst during the chill, belongs to both Apis and Thuja, but the Apis patient is worse in a warm room; cannot bear heat of stove; while the burning heat of the face, the relief of the pains from perspiration and the chill more marked on the left side early indicate Thuja.—*The Medical Advance*.

INFINITESIMALS IN PHYSICS.—By Dr. G. Burford. It is not too much to say that the research work in the physical science of the last decade has concentrated itself on infinitesimals. Infinitesimals in medicine have long been known to play a conspicuous part; infinitesimals in physical science—especially in researches concerning radium—are revolutionizing the views of scientific men. At a previous annual meeting Dr. Munster told you of opsonins and the opsonic index, and the infinitesimal dose of Tuberculin. The opsonic index may indicate—one four-thousandth of the thousandth part of a gramme being an average dose even in non-homœopathic hands; and a gramme is about fifteen grains.

Much of the physical research work of recent years has circled about infinitesimals, compared to which these quantities even are bulky masses. Take the spectacle of the break-up of radium atoms, which Sir Wm. Crookes has shown us in his ingenious instrument the spinthariscopes. Each one of these luminous particles is an atom of helium, each being *seen* as it is discharged from a radium atom. And an average atom is stated by Lord Kelvin to be less than one twenty-fifth millionth part of an inch in diameter.

Go a little further. The shining particles thus being shot out of the radium atom—how long can this wasteful process go on before the atom is dwindled away? Would it not be surprising to learn that the average life of a radium atom is 1,800 years; that these particles you can see rushing out are so small that the yearly loss of a gramme of radium in this way is not detectable by the most delicate balance? Indeed, this process may go on in this small mass of radium for several hundred years before an appreciable part of the radium has disappeared. After giving out for years a constant stream of substantial material into the air about it, the radium itself does not grow the smallest perceptible fraction of a grain lighter than it was before.

What effect does radium produce when in contact with the human body?

Professor Curie, having had some radium put into a glass tube, put the tube in a box and fastened the box to his sleeve for an hour and a half. A very bad ulcer developed, as a result, on his arm, but it took a long time—weeks even—to fully appear, and more than three months to finally heal. This length of time proved that it was not the heat, but the other energies given out by radium, that caused this effect on the skin. Professor Becquerel chanced to carry a small tube of radium preparation in his pocket for convenience. Here, again, the results were disastrous, for the sore that followed was most painful and tedious in healing. These effects followed from simply keeping a tube in his pocket, in which the radium was carefully sealed up. Radium rays, or many of them, will pass through glass just as light rays do.

How infinitesimal is the quantity of radium that produces these results is shown by the fact, which I again repeat, that radium can go on doing this sort of thing for hundreds of years with no perceptible diminution in its power.

What is the cause of these wonder-working powers of radium? These and other observations have led scientific men to the discovery of enormous stores of energy—hitherto unsuspected—that are bound up in the structure of every atom of every substance. I say of every substance, for while we can trace it in the case of radium and its congeners, it is only by virtue of the existence of a special instrument, the electroscope, that these hidden forces of radium are detectable. The electroscope is a marvellously delicate apparatus, that can respond to the presence and show the action of radium in unthinkable infinitesimal quantities. The spectroscope is capable of detecting the millionth part of the one-thousandth of a grain of matter. The electroscope is a million times more sensitive than the spectroscope. Here is, then, an instrument affected by infinitesimally small quantities of a substance to which it is adjusted, so to speak, to respond. Now, conceive the human body in a state of disease, as a sensitive instrument; conceive of a remedy adjusted to this special sensitiveness, like radium is to the electroscope, and the marvel of the action of infinitesimals ceases. We can see the result in both cases before our eyes.—*Homœopathic World*, April 1, 1908.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

A REPORT FROM A FRENCH JOURNAL.

BY EDWARD FORNIAS, M. D.

Epilepsy. Clinical Observation.* At a meeting of the French Homœopathic Society (October, 1907), Dr. Chiron, of Paris, read an interesting paper on a case of *epilepsy*, which after being first diagnosed as hysteria, was treated with *Bromide of Potassium* at the Salpetriere, and placed under hypnosis and suggestion at the Psychotherapeutic Institute, all with negative results, she decided to try homœopathy, probably because a surgeon had advised trephination, which she felt not disposed to accept.

The history of the case is as follows: A lady, 34 years of age, came to consult me for epileptic fits, which had lasted ten years, but which in the last three months had become more and more intense. The father died of bacillary infection (the information was doubtful), and the mother was extremely neurotic. She enjoyed good health during her childhood and she did not remember to have had any serious illness, except a pronounced anæmia, when she was 15 or 20 years old, for which iron was prescribed. Menstruation commenced at 15 years, inducing attacks of chorea, which continued for a long time and appeared with preference a few days before the menstrual period. She had remembrance of her mother's cruel treatment, which sometimes amounted to severe beating of the head. At 26 years she was married and has a child who is at present four years old, but who does not show any signs of neurosis.

It is necessary to go back to the origin of the trouble to find out that when 24 years old, she had a fright, one evening that she was alone in the house, by the unexpected entrance of a burglar. The surprise was followed by an intense emotion and swooning, but without nervous crisis. She was menstruating at the time, however, and there was a suppression of this function. She had her first attack at the following menstrual period, and from that time on, there were fits at the appearance, during and after the menses, and as she asserted, also at the new moon. The fits were exclusively nocturnal, and often she had several paroxysms at night, but rarely before midnight. The aura was characterized by a violent cramp in the muscles of the leg and in the left foot. The painful contraction seemed to extend along the leg and thigh, thence to the left arm, and the thorax became as if contracted. Instinctively the patient places the right arm in front of the head, gives a cry and falls unconscious. Her face becomes pale, the eyes seem to extrude from the orbit; she grinds the teeth, bites her tongue and a sometimes-pink-foam appears at the mouth. The whole body becomes soon agitated by violent jerks, but after a few minutes the agitation ceases, calm becomes manifest and the patient enters into a noisy snoring.

A portion of the MSS. of this translation having been mislaid, the second part of the report was published in our May issue.

The paroxysms last about twenty minutes. When she recovers her senses she does not remember anything, but complains of heaviness of the head and general lameness, while the heart beats violently.

At day time she has occasionally twitching and cramps in the left arm, followed by dimness of sight and vertigo, which last a few seconds, after which she never loses consciousness.

The paroxysms at present have the same characteristics as ten years ago. They only vary in intensity and frequency. Sometimes, fifteen days elapse without any trouble, then, during the other fortnight she has two and even three fits each night, more lasting at the menstrual period. Only one month passed without attacks. Pregnancy had a marked influence, diminishing the intensity and number of the fits, which however returned to their usual severity after the labor. Two months later there was an exacerbation of the trouble. Not a single night was passed without a paroxysm; she could not sleep and became exhausted.

She is of middle size, with blond hair, light complexion, pale face, dark circles round her eyes, and drawn features. She was timid, very slow in speaking and seemed to select her words.

Her general condition appeared relatively good. Her appetite was poor, though she ate tolerably well. Digestion was good and the bowels regular. Occasionally, on rising in the morning, she suffered from nausea and vomiting of bile. Great thirst also in the morning, but she could hardly drink on account of spasms of the œsophagus. The head is always heavy. No cough or expectoration. Shortly after two months ago, the attacks commenced to lose flesh.

A physical examination did not reveal anything particular, but a slight subdullness in the left supra-spinous fossa, as well as a small retardation of perception along the left arm and an exaggeration of the patellar reflexes, chiefly in the left side. No pharyngeal anæsthesia or narrowing of the visual field were discernable.

From the date of her first attack (ten years ago) our patient has successfully received the most diverse treatments.

The first physician, who diagnosed her case as hysteria, advised her to marry, and in the meantime ordered some grammes of Bromide. After a few months, as the attacks always return, a second *confrere* was consulted. I do not know for what reasons he attributed her condition to an ignored syphilis and prescribed the syrup of Gibert (Mercury and Potassium iodide). Result, Exacerbation of the attacks and intense gastralgia.

After that, the case was directed to la Salpetriere, where the first diagnosis of epilepsy was made. Here our patient absorbed 14 grammes of Bromide of Potassium daily, without the least improvement. Then called the surgeon, who recommended trephining, and after, she called at the Psychotherapeutic Institute, when hypnotism and suggestion were of no avail. Disheartened, she abandoned all regular treatment, contenting herself, from time to time, with a few doses of Valerianate of Ammonia; and finally she decided to try homœopathy, which has been praised so much to her.

After a careful examination of her case I was, I must admit, somewhat embarrassed with the choice of the appropriate remedy. A certain number are, in fact, mentioned by our classic authors as valuable remedies

psy, such as *Cocculus*, *Arsenicum*, *Opium*, *Calcarea carb.*, *Causticum*, *ea*, etc. I was guided, however, by the totality of the symptoms observed and *Cuprum* appeared to me to be the indicated remedy. In fact, *cuprum* is the remedy for *convulsions*, first tonic, then clonic, especially if occur *during the night*, or at the appearance of the menses, preceded by an aura that starts at the toes, accompanied with painful cramps *in the left leg*, and always *in the left side*. At the intervals we observe also characteristic physical exhaustion, or physical state with its provocation by the least mental exertion. Finally, if I add the complete insomnia under this drug, you will agree with me that *Cuprum* and no other remedy was the indicated drug.

Prescribed *Cuprum met.* 30, one dose every morning for three days. After two days and resume the remedy. I saw the patient on the 3rd of April. There was no great improvement. The fits remained nocturnal, but the intervals were longer (3 o'clock in the morning, instead of midnight). There was no *dazzling* or *vertigo* in the morning. She is always fatigued and has little appetite. I continued *Cuprum*, 30, as follows: 2 pellets at 3 o'clock in the morning, and 2 at night, at the same hour, without interruption.

4th April. Since the 4th of April she had not a single attack at night. She sleeps well, but dreams frequently, and sometimes she has nightmare. One or twice she had slight stupor during the day. The appetite is better and the stools remain normal. She has gained slightly in weight. I continued *Cuprum* for a week and resumed, it as before.

10th of June. The amelioration has persisted, and has become even augmented. Not a single fit after my last visit, even during the menses, which have become normal, but attended now with a little pain in the left iliac region. And yet, she is always slightly enervated. If she discontinues *Cuprum* for more than three days, she feels her nervousness increase, and becomes somewhat dizzy in the morning. The appetite is now good, she sleeps fine, no more nightmare. I continued *Cuprum*.

10th of July. Perfectly well until the 10th of July, when she became nervous and highly impressive. She does not feel as well as before. For several nights she was threatened with the premonitory symptoms of the fit, but she retained consciousness. Her sleep is not so good and troubled by fantastic and anxious dreams. She feels tired in the morning when she rises from bed complains of vertigo and headache. The appetite is poor again, but the thirst is constant. She is constipated. The stools have become hard and knotty, with a sensation as if only part of the stimulation was expelled and the rest slips back into the rectum. Also vertigo during the day. Prescribed *Silicea* 30, for six days, and to resume *Cuprum* as before.

10th of September. All signs of the trouble of July have readily disappeared, and she has passed two very good months, without the least attack. Menstruation is also normal without suffering of any kind.

During the month of August she took a rest in the country, and was able to do without the remedy for fifteen days. A week ago she met with strong vexation and since then is very nervous and sleeps bad. She is restless during the night and fears the return of the fit, as she has felt the cramps in the left leg. During the day, the dazzling in the eyes, as

well as the vertigo, reappeared repeatedly. *Cuprum* was continued without change.

Since then I have not seen the patient, what induces me to think condition has not suffered an aggravation.

That a period of six months should have elapsed without a return of fit, is not sufficient evidence to declare this case cured, and far is one from this idea. I only wish to contribute a new proof of what homœopathy can do, where other treatments have failed.

In the discussion that followed, Dr. Leon Simon congratulated the essayist on this interesting report. A report with a detailed observation clinical as well as therapeutic, which certainly has allowed a perfect individualization of the remedy, whose action has been so favorable. A remedy that has proved frequently efficacious in his hands, during his long practice, is *Stannum*, which has been, moreover, recommended by Hahnemann. However, he has never obtained a definite cure; the symptoms ameliorate, disappear for six months, a year, sometimes for two years, never more than that. *Hydrocyanic acid* has not given him as good results as *Stannum*.

Dr. Marc Jousset requested the insertion of this paper in the *Bulletin*, so that the argumentation may be rendered easier. He considers the diagnosis of Dr. Chiron's case doubtful (not true epilepsy); in fact, the attacks commenced at 24 years, instead of 15 or 16, which is the usual age. Moreover, the patient has had previous attacks of somnambulism, and *Bromide* given at the Salpêtrière did not modify the fits. He believes the case to be one of epileptiform convulsions in a somnambulist, as it occurs sometimes. The cases treated by Dr. Marc Jousset have never been cured; they are desperate conditions, where an amelioration at the outset is always followed by a relapse, frequently final. He remembers having treated a young man with *Cicuta virosa*, who was cured, but this case was not precisely one of epileptiform attacks in a somnambulist.

Dr. Chancereau mentioned a case of his practice, relieved by *Belladonna*, but not cured.

Dr. S. R. Proust reports a case of *Jacksonian epilepsy* aggravated by *Cuprum*, which was relieved afterward by *Belladonna*; but when *Cuprum* at a higher dilution was resumed, the evolution of the disease was modified, the nocturnal attacks disappeared, and only vertigo during the day persisted.

Dr. Dupuy, placing himself on surgical ground, insisted on the utility of this intervention. He stated that his "confreres" easily resort to trephining when treating Jacksonian epilepsy, and with good results. But trephining, however, we should try homœopathic treatment.

Dr. Seiffert reports several cases of epilepsy, from his practice, which have been ameliorated, but not cured by our remedies.—*Revue Homœopathique Française*.

(To be continued by another report on the same case.*)

(*Owing to the MSS. being misplaced the last portion of this report was published in our May issue.—Eds.)

THE HAHNEMANNIAN MONTHLY.

JULY, 1908.

THE ETIOLOGY AND PROPHYLAXIS OF THE INTESTINAL INFECTIONS IN INFANCY WITH SPECIAL REFERENCE TO THE MANAGE- MENT OF SUMMER DIARRHŒA.

BY

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(Read before the Homœopathic Medical Club of Atlantic City, N. J., May 15, 1908.)

WITH the advent of the hot weather we may reckon upon the usual epidemic of acute bowel disturbances among infants and its gruesome harvest. Later on we shall find among the survivors faces that give evidence of the long lingering traces of wrecked health. Fortunately we do not now look upon this wholesale loss of life as inevitable but with our present knowledge of the cause and prevention of the acute intestinal diseases of childhood it is no longer excusable to stand idly by when it is in our power to reduce to a minimum this pandemic condition. I feel indebted to your society for the privilege of being with you to-night to discuss so important a subject.

Notwithstanding the vast amount of careful work done in the field of the bacteriology of the intestinal contents in infancy there was lacking a rational conception of the cause of acute ileocolitis until Duval and Bassett discovered the dysentery bacillus in 42 of a series of 53 cases of diarrhœa in the sum-

mer of 1902. Prior to that time there had been much speculation as to whether ileocolitis was a specific disease due to an unknown organism or whether it was due to the normal bacteria of the intestinal contents which it was believed might become virulent under certain conditions (Escherich). Streptococci had been demonstrated by Booker a long time ago, but they were looked upon in the light of a secondary rather than of a primary infection.

The findings of Duval and Bassett having promptly been verified by other investigators, the interesting fact also brought to light that the dysentery bacillus, not unlike certain other bacteria, constituted a group of which the original one first discovered by Shiga in Japan was but a member. The type most frequently encountered here corresponds more closely in its cultural peculiarities, namely, in its power to ferment mannite, with the bacillus isolated by Flexner in the Philippines.

In regard to the etiological relationship of the dysentery bacilli to ileocolitis Knox says: "It can be regarded as probable that the same proof exists for the casual association of bacilli of the dysentery group with a fairly large number of diarrhœas in infancy, occurring along the Atlantic seaboard as it is hard to prove that the same bacilli produce epidemic dysentery in the adult."—(*Archives of Pediatrics*, April, 1908.)

Aside from true ileocolitis, however, there is a large group of diarrhœas which cannot be accounted for on the ground of a specific infection and which can only be explained as resulting from a variety of causes. In the first place, those of bacterial origin, not dysenteric, are not the result of a specific infection but the symptoms are the result of both the local and general effect of certain chemical substances produced in the intestine by bacterial action. To this class the term "toxic or mental diarrhœa" has been applied. Holt prefers to designate them acute gastroenteric intoxication. A large variety of organisms may set up such a diarrhœa. The clinical characteristics are transient fever usually present only in the initial stages, absence of grave constitutional disturbances and absence of blood and mucus in the stools.

A study of the normal bacteriological flora of the intestinal contents is not only interesting but it is of distinct practical value in giving us a rational understanding of the fermentative diarrhœas. Normally a group of organisms which set

lactic acid fermentation in carbohydrates is the predominating one encountered. According to the investigations of Tissier the bacillus bifidus is found in large numbers under normal conditions and this organism thrives best when a diet rich in carbohydrates is being fed. In fermental diarrhœas, on the other hand, the bacillus perfringens is found in predominating numbers. This organism attacks proteids, producing a toxin. Its growth is inhibited by the lactic acid bacillus (bacillus lactisogenes) and by the bacillus bifidus. On these grounds the use of a starch solution in diarrhœa, barley-water being a good example, is rationally explained; also the rationale in buttermilk feeding.

Other causes of diarrhœa which may be mentioned are bacterial toxins which have developed in the milk before the same is fed, in other words, the "acute milk infection" of Vaughn; indigestible foods and unsuitable milk modifications; mechanical irritation; teething, fright; hot weather. The last factor is often responsible for diarrhœa, especially when high humidity is associated with high temperature. No doubt these hot weather diarrhœas are eliminative to a great extent as their character would indicate for they are usually odorless and do not contain undigested material and mucus but consist chiefly of a thin, dirty yellow fluid. With the general depression and faulty action of the skin and kidneys during such meteorological conditions as mentioned the relaxation of the intestinal blood vessels and the increased amount of eliminative work thrown upon the colon readily explains the development of a diarrhœa.

The pathological lesions in the case of an infectious diarrhœa are usually found to predominate in the large intestine. Tanner and Street have shown that the Flexner type of dysentery bacillus produces a soluble toxin which is absorbed into the general circulation from the small intestine and is subsequently eliminated by the mucous membrane of the colon where it induces the characteristic changes of swelling, hemorrhage and occasionally necrosis. In protracted cases infiltration of lymphoid follicles occurs: this usually results in follicular hypertrophy and prolongs the course of the disease more or less indefinitely. The symptoms pointing to such a condition are the persistence of a moderate amount of fever together with mucus and at times pus in the stools. The true dysenteric type of inflammation with croupous exudate in the colon and rectum as

seen in adults rarely occurs in childhood; when it does it is probably an indication of infection with the true *Shigella*.

The question of prophylaxis should merit our most serious attention. This naturally can only be approached in a rational manner through a thorough understanding of every condition possessed of some etiological relationship to enteritis. In the first place, owing to the prominent role played by individual resistance, not only from the etiological but also from the prognostic standpoint, we should take particular pains to meet the advent of the hot weather to keep an infant in the best possible health. Infants are perhaps more susceptible to heat especially when associated with humidity than adults and it is almost imperative to remove them from large cities in the summer if we wish to give them the opportunity of escaping such illness. Parents unable to give their children this chance of a better environment we should instruct how to properly care for them at this time of year. During the heat of the day it is best to keep the children in the house with the shutters drawn to keep out the broiling sun and in the early morning hours or in the evening they may be taken out for an airing. This of course applies only to those unfortunates dwelling in the shade of the large cities. When such infants are taken ill their lives are often saved by the self-sacrificing care of a mother who willingly drops every other duty and will spend day after day with her sick child in the park or on the river. It is needless for me to speak of the unequalled value of the seashore both as a preventative and as a remedy for the diarrhoeal affection of infants and it is unfortunate that every child cannot have the benefit of such a boon during the fatal summer months.

An important point in infant feeding which I fear is often overlooked is the fact that in hot weather the organism requires less food and furthermore is less able to digest its food than in cold weather. This applies especially to the fatty proteids and the digestive derangements, even though they may appear slight, which result from the feeding of a full strength regime in hot weather unquestionably act as predisposing causes to subsequent infection.

The possibility of the dysentery bacillus lying dormant in the intestinal tract of a previously infected child explains an important phenomenon, namely the infection of a susceptible infant by an apparently healthy one. A child with ileo-

one just convalescing from the same is therefore unquestionably a menace to other children and should be treated accordingly. Under certain conditions isolation would seem justifiable and in all cases the greatest care in the prevention of the spread of infection should be exercised. I see no reason why colitis should not be reported to the health authorities as well as typhoid fever. With the interest of the profession fully aroused and the co-operation of a better instructed public I think that a great advance will have taken place in the curtailing of these infections. Time will not permit me to enter into a detailed discussion of the prophylactic measures which should be carried out by the nurse in attendance upon such cases, sufficient to say that the proper disinfection of the stools and the nurse's hands as well as the careful disinfection of the nurse's hands immediately after coming into contact with the discharges I think to be of prime importance. Not only should we strive to prevent carrying the infection to others but we should also guard against the possibility of the child becoming reinfected. As a great majority of cases of diarrhoea result from the drinking of contaminated milk, it is self-evident that right here lies the key to the solution of the problem. It is needless for me to tell you what the practice of sterilizing the infant's food has done in the reduction of infant mortality. Rigorous sterilization of the food would greatly simplify the subject of infant feeding if it were possible to rear a perfectly healthy infant on the continuous use of such food but unfortunately this is not the case. Empirical observations, however, have taught us that it is much less dangerous to feed raw milk during the winter than in the summer, and the investigations of Holt and Burk (Arch. Ped. Dec., '03) have shown the rather startling fact that despite the large number of bacteria that were found in many samples of milk fed to infants in the winter there was a remarkable tolerance for the same on the part of these infants. In the summer time, however, the milk fed to these infants was generally boiled and the practice among the poorer classes of using boiled and pasteurized milk has largely contributed to the reduction of the death rate. How much better it would be if we could rely upon our milk supply all the year around and if a properly awakened public sentiment demanded greater care and conscientiousness on the part of those engaged in the milk traffic. Conditions have improved over the past years, it is true, but they are still far from being ideal.

The subject of Pasteurizing naturally presents itself for fuller discussion. Pasteurizing was advanced as a substitute for boiling or sterilizing the food and was looked upon as possessing all of the advantages and none of the disadvantages of the former process. Whether pasteurized milk will take the place of raw milk as a food I am not prepared to say but I doubt it. I have seen too many cases of scurvy developed in children raised on foods that were either sterilized or brought just to the boiling point in their preparation to believe that perfect nutrition can ever progress with anything but a food, given at least for a reasonable length of time during the infant's development. I am digressing, but it is a notorious fact that scurvy is more frequently encountered among the better classes—usually where a sterile food has been given, especially one of the proprietary foods. Such foods will sour and the lactic acid bacillus which normally belongs in the infant's upper intestinal tract is starved out. In the absence of lactic acid fermentation putrefactive changes readily occur in the food and consequently there is a preponderance of the proteid splitting organisms in the gut over the fermentative variety and a chronic intestinal sepsis takes place. Whether this has anything to do with the etiology of scurvy I will not venture, but I do believe that the normal bacterial flora of the gut cannot be disarranged without detriment to the infant's health.

Right here lies the objection to pasteurization. If pasteurization is not properly performed it is worse than useless. The wholesale, commercial pasteurization of milk is to be condemned because the process destroys the fermentative bacteria that is the bacteria causing the souring of the milk, which are in themselves really harmless and which serve the useful purpose of inhibiting the growth of the putrefactive and some of the pathogenic organisms. If therefore pasteurized milk contains spores of pathogenic and putrefactive bacteria, or if it becomes contaminated after having been pasteurized it is in a worse condition than it was prior to pasteurization.

Pasteurizing should therefore always be performed at home and by means of some reliable apparatus in order that the pathogenic and proteid splitting organisms which may be present are thoroughly destroyed. It has been my practice to invariably pasteurize the food during the summer months while during the cooler periods of the year I prefer to feed the milk raw providing it comes from a reliable dairy where the strictest

leanliness is observed and from a herd free from tuberculosis. The feeding of diarrhoeal cases in the acute stage is simple enough but the management of the stage in decline and of convalescence may be beset with the greatest difficulties. Milk is usually the offending article of diet and while some infants can be put back on their regular milk formula within a comparatively short time, even before the stools have again become quite normal, others again will have a relapse with any attempt to feed even minimal amounts.

Unquestionably a great deal depends upon the state of the digestive process at the time we resume milk as a food. As Napin points out, the bacteria of the intestinal tract do no harm as long as digestion proceeds normally, but when the vital functions are depressed as occurs during the heated term in the presence of indigestion from other causes the lactic acid bacilli grow luxuriantly in the whey while the putrefactive or gas producing bacteria have a free field in the curd of the milk where they are protected from the action of what little digestive juice may be secreted. (Theory and Practice of Infant Feeding, 1904.)

I have encountered cases in which a number of genuine relapses occurred after the most cautious attempts to return to a milk diet, while on the other hand I have been able a number of times to successfully imitate Walls, of Chicago, and feed skimmed milk with the best of success during the acute stages of an enteritis.

I think we are all agreed that the imperative thing to do in the beginning of an acute diarrhoea, no matter to which group it may belong, is to stop feeding milk at once. A robust, well nourished child may be kept on plain boiled water for a period of twenty-four hours with advantage; this is especially the case when there is fever. Very young or frail infants, however, will not stand such a long fast and here it is wisest to begin with barley-water sweetened with milk sugar. The sugar acts as a tissue sparer and the starch acts both as a demulcent and as a pabulum for the benign (lactic acid forming) bacteria while its unsuitability as a pabulum for the pathogenic and proteid splitting bacteria is a decided advantage. After forty-eight hours, of such a food, however, we must as a rule add a moderate amount of proteid; this is accomplished by giving the babe a broth cooked with rice; or by adding the white of an egg to every eight ounces of barley-water. The barley-water

should always contain a pinch of salt and five per cent. of milk sugar (1 to 20).

Alcohol may become indicated. I firmly believe that alcohol acts both as a stimulant and as a tissue sparer, therefore as food, in protracted febrile cases and when the child arrives at a condition in which we cannot feed it satisfactorily and signs of inanition make their appearance we must use whiskey or one of the predigested foods containing alcohol in the form of wine. The dose should be cut down as soon as the odor of alcohol can be detected on the breath for then it is no longer oxidized but is being eliminated through the lungs.

I do not believe that we can lay down any fast rules in regard to the time for resuming milk. In acute cases of short duration the proposition is a simple one because in such we can safely wait until the diarrhœa has been fully controlled. It is the protracted cases in which the difficulty arises. A too early return to milk in such will almost invariably aggravate the symptoms and necessitate either the resort to a purgative or at least a twenty-four hours' starvation period. Again, we may deem it safe to give milk and have a relapse develop in spite of our caution. If the tongue be clean and the child be hungry I believe that milk may be safely tried in any case, providing the hyper-acute bowel symptoms have passed. I am not in the habit of beginning with top-milk or milk and cream mixtures and I believe that Walls is right when he attributes the disturbances from milk more to the fat than to the proteids. It has, therefore, been my practice of late to add a small proportion of skimmed milk to the barley-water in cases in which I wish to be especially cautious; ordinarily whole milk will answer.

During convalescence it may be difficult to find a milk formula sufficiently nourishing for the infant and at the same time one which it will be able to digest. There is always the danger of protracting convalescence unnecessarily or of allowing actual inanition to develop from too great caution in feeding. In such cases, where milk is not tolerated well, buttermilk feeding sometimes gives excellent results. As has been shown previously, lactic acid fermentation in the intestinal tract is a normal process and the acid forming bacteria are in reality a safeguard against infective organisms. It is not, however, due to the presence of lactic acid bacteria and lactic acid in the food but to the fact that buttermilk is a fat free food and fur-

Moreover, the proteid is not in the form found in fresh milk, namely, calcium dicaseinogenate but it is present in the form of casein lactate. This proteid does not coagulate on coming in contact with the rennin of the gastric juice, consequently it is less likely to cause digestive disturbances. In administering buttermilk to infants it is preferably sterilized and modified by the addition of a little wheat flour and milk sugar. The sugar and flour are added to the milk which is then allowed to come to the boiling point several times under constant stirring to prevent clotting.

Among other foods indicated at the time milk cannot be taken in sufficient quantity to supply the demands of the organism, beef juice deserves special mention. This should be prepared by the cold process in order that the soluble albumins which are coagulated by heat may be present in the product.

THE RELATION OF UREA TO PROTEID METABOLISM.

BY

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It has long been known that proteid nitrogen is an essential constituent of protoplasm, and that unless this element is absorbed in definite quantity the tissue-cells cannot maintain their integrity. Nearly ninety per cent. of this nitrogen is usually eliminated in the form of urea, and for many years the quantity of this substance excreted in the urine in twenty-four hours has been considered a reliable index to the rate of proteid metabolism, provided the kidneys were not seriously diseased. Clinicians have thus come to look upon the various methods of urea-estimation as dependable sources of information regarding the state of cell-nutrition and the activity of the renal function.

It can be shown, however, that the data derived from the estimation of urea are without value, as generally interpreted, in the study of the metabolism of the tissue-cells.

The fact that nitrogenous food-stuff is necessary to animal life has long been taken to mean that the animal body is inca-

pable of synthesising proteid. This was one of the chief points in Liebig's doctrine of the contrast between animal and vegetable physiology. The common teaching was that the coagulated and indiffusible proteids of the food were hydrolysed by the digestive enzymes with the formation of diffusible proteoses and peptones, and that these were then absorbed by the mucous membrane of the alimentary canal. In fact the whole purpose of digestion was believed to be the rendering of proteids into crystalloids. Proteose and peptone were considered the normal end-products of digestion, and it was thought that practically all nitrogenous food was absorbed in these forms.

A difficulty arose, however, out of the fact that proteose and peptone could not be detected in either the portal or the systemic blood-streams. Indeed these substances when injected intravenously were not only excreted unchanged by the kidneys, but showed actual toxic properties. Hofmeister sought to explain this difficulty by supposing that the proteoses and peptone were carried into the circulation by the leucocytes. Proteose had been detected in these cells, and the common occurrence of leucocytosis after a meal was considered additional proof of this hypothesis. But Heidenhain showed that leucocytosis was not always present after a meal, and that furthermore, it was quantitatively impossible for the leucocytes to ingest such a large amount of nutriment. It was therefore suggested as a more probable explanation that the proteoses and peptone were resynthesised by the intestinal mucous membrane into the proteids of the blood-serum. This hypothesis met with wide acceptance, and the work of Salvioli and Hofmeister was believed to confirm it, but the experiments of these investigators were capable of other interpretations, and hence no proof of it could be obtained.

More recent work has thrown an entirely new light upon the whole problem. As long ago as 1867 Kühne demonstrated that trypsin was capable of carrying proteid digestion beyond the peptone stage. He was able to show that under the action of this enzyme leucin and tyrosin were produced. But he underestimated the activity of the ferment, believing that only one-half the proteid molecule was affected by it. It has now been shown that trypsin can break up proteid into its constituent amino-acids and other substances almost as completely as the mineral acids, leaving practically nothing which responds to the classical tests for proteid. Furthermore, pe

which was at first believed to be incapable of hydrolysing peptides, has been found to have almost as active hydrolytic properties as the pancreatic enzyme. Kühne believed that these amino-acids were of no value in nutrition; he considered them merely wasted material. It was thought impossible for non-proteid substances like leucin, tyrosin and glyocol to be available in the production of the body-proteids.

With the discovery of erepsin the question of the role of the amino-acids in tissue-formation took on an entirely new aspect. It was shown that this enzyme did not affect all proteins alike. With one or two exceptions the only substances acted upon were the proteoses and peptones. These were found to be split into their component amino-acids, thus making the hydrolysis of proteid substances in digestion complete. Erepsin was at first considered to be a ferment of the *succus entericus*, but Cohnheim demonstrated that it occurred in much greater abundance in the intestinal mucosa than in the lumen of the gut. This discovery disposed of the objection to the complete hydrolysis of the proteids raised by Schmidt Mulheim, Hönck and Sieber and others, who argued that if this took place, the amino-acids should be present in the intestinal contents during digestion, whereas repeated experiment had failed to demonstrate them. It was later shown by several investigators, notably by Kutscher and Seemann that amino-acids could be isolated from the contents of the small intestine. It seemed probable therefore that under normal conditions proteid food was split up into its non-proteid constituents, the final stage occurring in the intestinal mucous membrane under the action of erepsin, as the nutritive juices were being absorbed.

Valuable confirmation of this theory was afforded by von Noorden's discovery of amino-acids in the portal blood-stream in sufficient quantity to account for all the proteid taken in an ordinary meal, and actual experimental proof in the case of lower animals was supplied by Loewi and by Henriques and Hansen, who found that in dogs and rats nitrogenous equilibrium could be maintained, and even a gain in weight produced upon a diet containing no proteid at all, but only the non-proteid end-products of tryptic digestion.

Briefly then, instead of the proteids being absorbed chiefly as proteose and peptone to be rebuilt in the intestinal wall into blood-proteids, these in turn serving as material for tissue

repair, they are taken up almost entirely as non-proteid substances, mainly of the amino-acid type, and circulate as such in the blood-stream.

An important difficulty is here explained. It is well known that the proteids of different species of organisms possess a specific structure and properties, and that one cannot be substituted for another. This fact is closely related to our ideas regarding immunity and kindred phenomena. It may be shown that splitting a proteid into its constituent peptones does not materially alter its specificity, and it was thus very hard to understand how one species could synthesise its own specific proteids out of the peptones of another species. If, however, we suppose that it is the amino-acids which are utilized, the difficulty disappears, for these compounds possess no specific character. And, furthermore, we are relieved of the task of explaining how such highly complex substances as the coagulable proteids of the blood are made available for the formation of the cellular proteids. As the amino-acids come in direct contact with the tissue-cells, we may readily suppose that these and not the more complex bodies are the ones utilized. This explains also how certain tissues, composed of specific proteid substances, may be made use of by the organism during starvation for the nourishment of other more vital tissues containing proteids of quite different character. The old theory which involved the tearing down of one set of proteids by autolysis, their synthesis into the proteids of the blood, the autolysis of these and a second synthesis into the substances required by the organism, was too clumsy to be acceptable. But if we take the view that the autolytic process results in the discharge of a quantity of amino-acids and related radicals into the blood-stream, it is not hard to understand how these may be built up directly into new protoplasm anywhere in the organism.

It has been shown by Jacoby, Lang and others that many of the organs and tissues of the body possess the power of liberating ammonia from amino-acids. This property is especially marked in the intestinal mucous membrane and in the liver. Taken in connection with the observation of Falck that nearly all of the nitrogen of proteid food appears in the urine as urea within a few hours of its absorption, these facts throw a remarkable light upon the fate of proteid in the body. It is now clear that the greater part of the nitrogen of this food-

ever reaches the tissues at all, but is at once separated from the non-nitrogenous portion as ammonia, carbonated and oxidized into urea in the liver. The remainder of the molecule passes into the general circulation with but little loss of potential energy (10 to 15 per cent.), for it is well known that hydrolytic changes are very nearly isothermal. It thus becomes available for energy-production much as are the carbohydrates and fats.

It is evident, therefore, that but little can be learned by a quantitative estimation of the daily output of urea. In the first place unless we are accurately informed as to the amount of nitrogen ingested, which is rarely the case, we are not in a position even to begin an estimation. Secondly, it is impossible to form any clear idea of the amount of catabolism taking place in living tissue, because the greater part of the nitrogen which we measure has not even passed the liver; and thirdly, we can get no accurate data as to the amount of energy derived from the proteid food, because the nitrogen is split off from the molecule with but little loss of energy and thus tells us nothing as to the ultimate disposition of the energy contained in the non-proteid portion.

The question has an important bearing upon the problem of diet. If a large part of the conventional one hundred grams of proteid, which were supposed to be a necessary part of the daily menu, reaches the tissues in denitrified form, it would seem that we might save the organism the trouble of getting rid of so much excess nitrogen by substituting carbohydrate or fat for a part of the proteid. This has in fact been successfully accomplished by several investigators. The experiments of Sivé, Landergren and Chittenden have shown that the organism may be maintained in active health and in nitrogenous equilibrium upon an amount of proteid ranging from thirty to fifty per cent. of the quantity usually considered necessary.

If the estimation of urea is without practical value in determining the state of tissue-metabolism, the question naturally arises: How may this be determined?

It is possible that the solution of the problem lies in the determination of the endogenous kreatinin. Folin claims that on a diet free from kreatin, the kreatinin of the urine is a fairly accurate measure of tissue-catabolism, or at least of muscle-catabolism. Unfortunately the quantitative estimation of kreatinin is difficult. At present we have no method that is

simple enough to be useful clinically. It is possible, however, that a method might be devised, based upon the fact that kreatinin gives several interesting color-reactions. If a practical artificial color-scale could be prepared, the reading being checked by careful gravimetric tests, a convenient apparatus might be made which would give a rapid and serviceable comparison color-test. Perhaps Jaffe's reaction might be employed in such an apparatus. The question is certainly well worth study by the investigator who discovers a reliable method of determining kreatinin clinically will confer upon the medical profession a gift of far-reaching usefulness.

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POINTS RELATIVE TO THE GYNECOLOGICAL EXAMINATION, AND TREATMENT OF THE MORE COMMON DISEASES OF WOMEN.

BY

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Read before the Germantown Homœopathic Medical Society, March, 1908.)

IN casting about for a subject that would interest the general medical man, rather than the specialist, I conceived the idea that some, and possibly most of you would be interested in something very elemental and these few hints are the result of my conclusion.

In learning to make the gynecological examination for the discovery of pathological conditions, the rule to *study first the normal*, holds good here as in the examination of any other organ or part of the body.

For instance, we could all make a satisfactory examination of the eye in ordinary cases, *if* we would really set about it in the best and in the proper manner. The difficulty with most of us is the fact that we do not start right and study the normal eye. We read about a disease, and perhaps study the disease, and then in an off-hand manner, expect to recognize it when we see it.

It is exactly so with the gynecological examination, and the same difficulty is experienced as in other branches of medicine, the normal is not studied and so, as is to be expected, diseased conditions cannot be recognized.

Another difficulty which is sometimes not considered, is the variation in the normal which is, at times, very confusing.

I am aware of the fact that it not only requires a study of the normal; but also an immense amount of experience with both the normal and abnormal to make an expert examination. This, however, is not required in the ordinary case, so I feel that if a man will make an honest effort, he may acquire the knowledge.

I think that physicians should occasionally take the post-graduate courses that our colleges offer, and I am sure all would be surprised to find how much easier it is to make these different examinations, after having been started right, and having been examined, with an instructor, a number of cases.

I do not mean to say that, by attending these post-graduate

courses, you would become experts and competent operators; but rather good, everyday diagnosticians. Expertness comes only with long practice and conscientious labor, day after day and year after year.

In making an examination, we begin at the vulva, noticing any growth (and the most common are venereal excrescences); ulcers, here again probably venereal; abscesses of the glands of Bartholini, again venereal. Ulcerations in this region may be malignant or tubercular in character; but these are comparatively rare.

Before separating the labia, look at the perineum and vulva as a whole; note the *relative* position of the *anus* and the *arch of the pubis*; do these structures bulge and seem to be pushed out and has the anus dropped downward and backward; or is the vulva cleft well marked and the *anus well drawn up under or toward the arch*? If the former be the state of things, the perineum is probably poor, giving little support to the organs above; but if the latter condition obtains the perineum is almost surely good as far as function is concerned.

Separating the labia, we notice the orifices of the vulvo-vaginal glands, the urethra and Skene's glands. If these show a distinct redness or congestion, a gonorrhea has likely been present at some time, and if pus is present in these organs the infection is of recent date.

Now examine again the perineum and also the vaginal walls internally. Protruding vaginal walls indicate a weak support or lacerated perineum, the obverse will point toward a good perineum; if on introducing the finger it goes, at first almost directly in upon the place in which the patient is lying, and then downward and backward, the perineum is good; if on the other hand the examining finger goes at first directly downward and backward, the perineum is poor even though it is, externally, a long one. Try its muscular tone by pressing the finger downward and backward; if the resistance is decided and the vulva closes with a vigorous action, it shows a muscle of good tone which means a good perineum.

This will ordinarily finish the external examination, and we proceed to investigate the internal organs, and in this examination a great deal depends upon method or technique. A great advantage is gained by having the proper reach, and this does not necessarily depend upon the length of the finger, as is generally supposed.

If all the fingers, excepting the one or two used in making the examination, are carried under the perineum and anus, the perineum can be pushed up out of the way, and the finger reach increased by one or more inches.

In making internal examinations be *slow* and *careful*; find out *one* thing at a time; do not rush from cervix to fundus, or lateral regions, until satisfied with the examination of the cervix. Do not cause the patient pain if it is possible to avoid it; rather let her come to the office again, thus getting her confidence, than to cause her to fear the pain of an examination. If she thinks she is *not* going to be hurt, she will relax the abdominal muscles and more knowledge can be gained in one examination under these circumstances, than can be obtained in several if she be in constant fear of pain.

I think a better idea of the contour of the cervix, lacerations, etc., may be obtained by the sense of touch, than by inspection, for the reason that when a speculum is used, a laceration which might be felt, may be covered with mucous membrane, making its detection unlikely to sense of sight.

The common pathological conditions found here are lacerations, erosions, eversion of the cervical mucous membrane due to lacerations or congestions, inflammations of the canal, cystic degeneration of the cervix and malignant growths.

All gynecologists have their own favorite method of making pelvic examination; but I will mention a few practical points which will make the examination easier and more satisfactory.

When introducing instruments into the vagina, or working through an instrument light is required and the operator will do better to stand at one side of the patient; but in making the internal examination, light is not needed and better work will be done by standing in front of the patient.

After satisfying ourselves as to the condition of the cervix, we next feel for the fundus and ordinarily it is quite easy to find and outline accurately; but there are cases in which it is very difficult, and it is about these that I wish particularly to speak.

Where the uterine body is deep in the pelvis and impossible to reach with an ordinary and reasonable effort, place the internal finger beneath the cervix and raise the whole uterus toward the abdominal wall, until it is within easy reach of the external hand. A uterus that is retroverted cannot, at times, be readily palpated, and should if possible be replaced before

completing the examination. The same holds good of the lateral regions, as a prolapsed ovary is more difficult to outline accurately than one in its normal situation.

After such an examination the condition of the uterine body can usually be determined. Displacements, fibroids, enlargements due directly or indirectly to pregnancy, and cancerous conditions are the most common.

The lateral regions will now receive our attention, and these are, of course, the most difficult part of a pelvic examination. In suitable subjects, especially if the tissues are relaxed, it is not a difficult matter to outline the round ligaments, ovary and sometimes the tubes; but in stout persons or those of firm resisting tissues, it may be impossible to palpate these structures without giving an anesthetic. For the examination of the normal case, I think, for the average man, the most satisfactory way is to carry the internal finger or fingers downward into the cul-de-sac beneath the lateral cul-de-sac, place the external hand on the lower abdomen, and gently but firmly, press downward and approximate the internal fingers. Both hands are now below the ovary, if it be in normal position, and by gently drawing the approximated fingers upward and forward, the ovary will be felt to glide between them. This will give the exact location of the ovary and it may be palpated repeatedly, if done carefully. Another, and very much neglected method of pelvic examination, is by the rectum. With a finger in the rectum and the other hand on the abdomen making counter pressure, or with an assistant or nurse drawing down the uterus with a tenaculum, the uterus, especially the posterior surface and the tubes and ovaries may be very thoroughly palpated. This is a particularly useful method when for any reason the vaginal route is impossible or undesirable.

Old inflammations, or rather the results of inflammations, sometimes leave no trace that can be discovered by the usual methods of examination; but almost always there is thickening and rigidity, all the organs being more or less restricted in their movements. The results of inflammations which we call tubo-ovarian masses, are ordinarily made out with ease, lying in the lateral cul-de-sac or in the cul-de-sac of Douglas. These masses are composed of tube, ovary, thickened broad ligament and inflammatory tissue. Pus is often present even in chronic cases.

We have in this region a great variety of pathological conditions

ions developing, such as the tubo-ovarian mass just referred to, the various forms or varieties of ovarian cysts, broad ligament cysts, dermoid cysts, ectopic pregnancies, tubercular infections, etc.

The differential diagnosis of these conditions must be made from the sensation imparted by palpation and by the history and symptoms of the case. This would be a very interesting subject to discuss; but is not within the intended scope of this paper.

The majority of tumors in the lateral regions, which are adenoid, are of inflammatory origin due to an infection from the ovary.

LOCAL TREATMENT.

In speaking of the local treatment of the more common diseases of women, I shall confine myself mostly to principles, giving a general outline of treatment, realizing that every case must be treated according to exact conditions present to get the best results.

One of the first and most important of these principles to which I wish to call your attention is that of "absorption" and the ordinary drugs and methods used to further this action.

Following a pelvic inflammation there is nearly always more or less inflammatory tissue that gives pain and is slow in disappearing. These cases do not always, by any means, need operating and the cure may be assisted and hastened by the application of some absorbent to the part affected.

As we have seen before, these inflammatory masses lie low down, in contact with the vaginal walls, and drugs applied to the vaginal vault will come in quite close proximity to them.

Any drug may be used that will do the work; but the usual applications are iodine or sulphur. As representing the former class we use Churchill's tincture of iodine which is a powerful absorbent, being composed of iodine and iodide of potash. As representing the sulphur class we use ichthyol 25 per cent., usually in glycerine. The iodine must be used with care as it is irritating if allowed to come in contact with the vagina low down, and will burn for hours and cause much pain and discomfort. The ichthyol is not irritating and may be applied as a tampon; but has the disadvantage of being dirty and of having an offensive odor.

The slight pressure exerted by a small tampon, also out doubt, influences absorption, as does the glycerine which it is usually saturated.

In addition to the absorptive action of the glycerine causes a local depletion of the congested tissues by virtue of its hygroscopic action, and thus is often of considerable relief in relieving engorged and congested pelvic tissues. Tampons may be used to retain a displaced uterus in normal position, to support the pelvic organs when the pelvic supports are weakened, as a carrier of any medicine that may be desired. Great care should be taken to avoid stretching the vagina when using a tampon as this will ultimately make the patient worse. The vagina should *never* be *packed*, unless for some definite purpose, such as the control of hemorrhage.

Caustics are seldom necessary except to cauterize chancroids, when these ulcers show a tendency to spread rapidly, when there are but one or two so that we may be sure that the ulcerating surfaces are destroyed at the same application.

When there are several ulcers and it is quite impossible to thoroughly burn them *all* at the *same* time, I prefer the application of a powder composed of equal parts of calomel and starch; but to make this treatment successful, the patient must keep the vulva clean and dry, cleansing as often as necessary to effect this; in short, keep the ulcers dry, clean and covered with the powder. If this is carried out thoroughly it is surprising how soon an ordinary chancroid will heal. To treat these ulcers I prefer pure carbolic acid. Nitrate of silver is seldom used as a caustic, as its application is attended with much pain and it does not cauterize as thoroughly as the others.

Germicides are used in infectious cases, such as a gonorrhea, the principal ones being nitrate of silver, 2 per cent. to 10 per cent., in an infected urethra or cervix, argyrol may be used for the same purpose in a 10 per cent. to 20 per cent. solution. It has the advantage of being unirritating in any strength. Other drugs may be used; but these may stand as types. My personal opinion is, that these drugs should not be used in acute cases unless the operator be expert with the use of uterine and vaginal instruments as there is danger of spreading the infection.

Douches are used for cleanliness, to convey medicine into diseased structures, and to relieve congestions. There is probably no quicker method to reduce a congested cervix, vagina or other pelvic tissues than by rest in bed and the use of

hot douche. It hot douches are given when the patient is not confined to bed, the recumbent position should be assumed during its administration and maintained for at least an hour after.

In regard to the use of the douche in gonorrhea, there seems to be a division of opinion; some would prohibit entirely, others use indiscriminately. Judgment should be used in this as well as any other curative measure that comes before us for our consideration.

As a matter of fact it depends more upon *how* the douche is administered, than in what cases it is given. If the vulva is cleansed before the douche is given, and the stream started before the nozzle of the syringe enters the vagina, I can hardly conceive of the infection being carried upward to the cervix.

If we are sure the infection is confined to the external organs, the douche should not, as a matter of common sense, be used; but if the cervix is involved, as it is in the great majority of cases, there seems to be no good reason for withholding the douche, and every reason for giving it.

Solutions of permanganate of potash will probably give as good results as anything.

THE TREATMENT OF SPINA BIFIDA.

BY

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SPINA bifida is a comparatively rare condition, occurring but once in about a thousand births. Rare as it is, however, it is surprising how few are the cases referred to the surgeon. Moore has made an analysis of all the cases treated by operation and on file in the Index Catalogue of the Library of the Surgeon General's Office in Washington, covering cases from all over the world from the time of the first operation in 1813 to 1905. He was able to find but 190 articles in which 378 cases were reported as treated by excision and 67 articles with reports of cases treated by injection.

*Read at meeting of the Surgical and Gynecological Society, Kansas City, June, 1908.

It is almost certain that the reason for this small showing of operative efforts for the cure of this otherwise hopeless condition lies in the fact that the opinion is quite prevalent among physicians that surgical or in fact any kind of treatment is ineffective. Several things contribute to the formation of this impression and we cannot ignore the fact that there is no foundation for it. For a long time the injection method seemed to have the most favorable results and was most frequently resorted to, often by unskilled hands. This method probably had an unnecessarily large mortality on this account. This is shown by the fact that among the 71 cases treated by Morton with the injection method in the report of the London Clinical Society the mortality was 38 per cent., while Morton's own statistics show a mortality of but 15.3 per cent.² The injection method has justly fallen into disrepute, not so much because of its high mortality rate but because its technic cannot be made to conform to the requirements of modern surgery. But when we come to a consideration of the operation by excision, we find that among surgical writers there is a well-marked hesitancy regarding the operation that is out of all proportion to the dangers involved. In the most recent text books palliative treatment is advised in some cases and the prognosis, whether operative or non-operative treatment is followed, is considered favorable.

For some time it has seemed to me that there is need of a tire change in the attitude of surgeons toward this condition. The prognosis, without operation, except in cases where there is a thick skin covering of the tumor, is absolutely hopeless. In these excepted cases, even, the deformity is one that seriously interferes with the patient's usefulness. Of 649 children who died of spina bifida in England in 1882, 612 died within the first year. Among 90 cases not operated upon, the majority died within the first few weeks and only 20 lived to be five years of age.³ I cannot understand why surgeons allow themselves to be frightened by the dangers of the operation. The dangers are well understood and most if not all would be overcome if more study was given to the technic of the operation. It is true that the operative mortality is thus far high. But it varies with the operator. Those who have performed the largest number of cases almost invariably show the lowest mortality, a fact which shows that the high mortality of some operators is due to faulty technic. The average mortality

the cases collected by Moore ¹ was over 35 per cent. in operations done during the first few months of life. It was 4.7 per cent. in cases aged five years or over. Nicoll ⁴ reports a series of 32 cases in which he had a mortality of 21.87 per cent. It is to be noted that he operated upon all cases as he found them and among his cases were two that were practically moribund from infection at the time of operation. Not counting these cases, his operative mortality was 15.62 per cent. Mayo Robson ⁵ reports 20 cases with a mortality of 30 per cent. Sachse ⁶ reports 18 cases from Mikulicz's clinic with a mortality of 33.33 per cent.

The fact that the mortality has lessened as the age of the child increased has led operators to adopt a waiting policy which seems to me to be wrong in principle. Rightly interpreted, the high mortality of operations within the first few months of life simply shows that the natural mortality incident to the condition itself is added to that of the operation. It seems reasonable to suppose that it can only be the favorable cases that are at all benefited by delay as while waiting, the tumor increases in size, the skin covering ulcerates and perforation with infection of the meninges is liable to take place. Other things being equal, the conditions favorable to operation will not be better or as good when the age is six months as when two or three weeks. A successful operation has been performed on a child three hours old ⁷ and the age of my last case was eleven days.

Some operators recognize certain contraindications to operation. Robson ⁵ states that an operation is not necessary or to be advised where the sac is small and well covered by a firm pad of integument. He does not advise operation where there is a fissure of a considerable part of the spinal column or where there is well-marked hydrocephalus or paraplegia. Paraplegia is given by most operators as a strong contra-indication to operation, but Lebrun ⁸ and Nicoll ⁴ have reported cases in which paraplegia was relieved by operation. It would seem that these cases should be given the benefit of even a doubtful result as without operation their condition is hopeless. Slight hydrocephalus is usually benefited by the operation.

A study of the literature shows that the technic has not changed materially since the first operations for excision. At the present time it is not deemed advisable to make effort to restore the bony defect in the canal with osteoplastic flaps.

Nerve fibres attached to the sac wall are not preserved with the care that was formerly given them. They are only saved and restored to the canal when they pass through the tumor and enter the canal distally. The chief defect in the technic of this operation seems to be that it is difficult to so close the sac after the redundant portion is excised as to prevent leakage of the cerebrospinal fluid. In my own experience with the operation I have found it difficult to make a closure that would be watertight. In my last case I modified my technic in such a manner as to overcome this defect and I believe the change is worthy of mention. In all of the cases of spina bifida that I have seen except in cases of simple meningoceles with a small opening in the bony canal, the sac is always widely spread out and closely adherent to the posterior portion of the bodies of the vertebrae. Often, even, in a tumor of spheroidal outline, the spinal canal is two or three times wider than normal at the cleft position. In this case I found the canal so widened and my skin wall, after its dissection from the skin covering, so scanty that it was impossible to bring the edges together. In overcoming this difficulty I made a change in the ordinary technic of this operation which I believe was the chief factor in the recovery of the case. After excising the sac almost to a level with the skin I dissected the sac wall from its floor, together with considerable of the connective tissue beneath it, carrying the dissection on either side almost to the median line. Instead of suturing the sac flaps edge to edge as I had formerly done I used a Halsted mattress suture which brought the raw connective tissue surfaces together and re-enforced this suture with a continuous suture. This method of closure brings about more contact of tissue and insures rapid repair of the tissues with consequent freedom of leakage and consequent infection. I also closed the skin flaps with mattress sutures carrying them through the connective tissue covering of the sac flaps.

This seems a better method than the one most often followed of bringing the skin flaps together on a line different from that of the sac suture.

In the dressing of the wound it is usually advised that it be sealed with collodion. With the above technic, this is unnecessary. The wound should be so dressed that firm pressure be kept up for at least 48 hours in order that any extra pressure from within the canal produced by posture or crying will be overcome.

In my first operations I took great care to prevent the loss of cerebrospinal fluid by means of posture and plugging of the opening in the canal. In my last case we were compelled to stop the operation and perform artificial respiration, using, as a last resort, the Byrd method of resuscitation in asphyxia neonatorum. During the manipulations there was no protection whatever to the loss of cerebrospinal fluid. It was, indeed, a surprise to me that the extra loss of fluid which undoubtedly occurred, did not complicate the case.

My experience in operations for spina bifida is limited to five cases with two deaths. Of the two that died, death was caused by infection following a persistent leakage of the cerebrospinal fluid. It was, from all standpoints, other than the difficulty of closing the sac, the most favorable case in the five. I am certain that had I used the above technic of closure the result would have been different. The other fatal case died from leakage with its sequelæ but it was an otherwise unfavorable case. At the time of operation it was having convulsions and had a severe gastroenteritis. It lived, however, for four days and had the operation been better done might have survived. Two of the three recoveries were simple meningoceles with a defect involving but one vertebra. The technic was simple, consisting of dissection of the sac from the skin covering, ligation of its neck and closure of the skin flaps. The other was my last case in which I closed the sac as described above.

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GONORRHEA IN THE FEMALE.

BY

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(Read before the Philadelphia Society for Clinical Research.)

I ALMOST hesitate to attempt a consideration of "Gonorrhea in the Female," and all the fields of gynecology that this term, unrestricted, implies: a properly complete and thorough presentation would necessarily consume too great a length of time. I shall attempt briefness without too great a sacrifice of details of practical value. It is a subject upon which much has been written—one that has been freely and competently discussed. Despite this, it has been my observation at least, that the average medical man thinks only of a simple urethritis or a pus-tube when gonorrhea in women is mentioned, forgetting or disregarding the more vitally important and practical side of the subject—the ravages produced by this infectious process upon the internal organs, to which we must attribute the high morbidity rate of our women to-day. And in this connection, it is hard not to moralize. To those of us who have had any experience in this line, the statement of eminent authorities that in woman, gonorrhea is a vastly more disastrous disease than syphilis, is an absolute fact. Statistics of various clinicians range from 50 per cent. to 80 per cent. of all diseases in women as having a gonorrheal infection as the etiologic factor. Ninety-nine out of every one hundred cases of blindness occurring in infancy are due to a gonorrheal ophthalmia, contracted from the birth canal of the mother. Beuum states that one-third of all cases of sterility in women are due to the gonococcus. In the light of these well known facts, it is appalling in these days of advanced medicine and scientific enlightenment that gonorrhea should be as prevalent and as virulent as it is; and, to note the lethargy on the part of the laity as well as the profession towards any definite action for the control of the spread of the infection. I recognize the able discussions that have been evolved by this topic. It seems to me, however, that they all trend in one direction, namely, the elimination of prostitution—and it is my opinion that in this connection we are attempting to overturn a well-built stone wall with a straw. It is vitally more important for us to consider the innumerable women who are first infected within the rights of Holy Matri-

mony. We blame the consorts, naturally, for youthful indiscretions. It is the tendency to attribute their existence to the fact that prostitution exists. It is with youth in the greatest number of instances that we must deal, to regulate these indiscretions, or attempt at least to bring them within safe limits. I believe that there exists too much false modesty, and as the result we have engendered a dangerous ignorance of all that pertains to the sexual organs both in the male and female. To offset this ignorance which means harm there is but one way: and when we begin to properly teach the growing boy and girl "Sexual Hygiene" and venereal abnormalities, I believe we will come nearer to the solution of the problem of how to prevent the spread of venereal infections.

The gonococcus of Neisser, detected in cover glass preparations by the use of Löffler's methylene blue and Gram's differential stain (fails to take Gram's stain) will be found in the discharges from the genital tract during the late as well as the early stages of the infection. In fact as is stated in Kelly and Noble, "the gonococcus is one of the most difficult organisms of which to rid the generative organs of women once they have been infected." As a matter of fact, a pure gonococcal infection is but seldom met with; the usual rule being mixed infection, the staphylococcus pyogenes aureus being most frequently associated. This admixture, it has been noted by some investigators, apparently lends an increased virulence to the gonococcus, the associated type of organism preparing the way for the specific activity of the latter. During the later stages of the infection—and by this I mean after the subsidence of all symptoms—possibly months after the initial infection—the detection of the gonococcus in the discharges will be a matter of patient and diligent search. In a small proportion, our efforts are unrewarded, and we feel justified in placing the cases in the category of those cured. In the larger proportion we will find on repeated bacteriological examinations—now and again a few of the infecting organisms—and these we place in the category of cases uncured or latent. That this organism can remain dormant in the genital tract of the woman for a period of months or years and then be awakened into activity is no uncommon experience. Especially do we meet with such renewed activity following childbirth, when we have all conditions favorable for the growth of bacteria present—blood spots, abraded and lacerated surfaces acting as excellent culture

media. It may likewise be induced by prolonged and excessive alcoholic stimulation and sexual excitations. According to Webster, in these cases we have to deal with a "chronic, irritation in the tissues of the genital tract, kept up by the toxins of the gonococcus, despite the fact that the bacteria are but few in number and only partially active."

Säuger, in this connection, speaks of a "residual gonorrhea" as denoting a chronic affection. This, it is his claim depends longer upon the presence and activity of the gonococcus than upon the tissue changes produced by the organism at a previous time.

The sites of predilection for the initial infection are the urethral glands, including the ducts of Skene—the vulvo-vaginal glands and the cervix—cylindrical or cuboidal epithelium is easily attacked by the gonococcus, whereas stratified squamous epithelium offers a barrier to its invasion. This readily explains the vulvitis of the acute attack as almost invariably a secondary condition to the discharges of the above mentioned local points, and why, in some acute cases, it may be entirely lacking; likewise, it explains vaginitis as a comparatively late complication and when present it appears late and is invariably secondary to an endo-cervicitis or endometritis. Now, again, we meet with cases in the acute stage, where the infection is limited to the external genitalia. We should be on our guard to recognize such a limitation, for in preventing the spread of the infection to the internal organs lies our only chance of offering a favorable prognosis for the disease. It is then, when the patient presents herself for examination to find evidences of external and internal infectious foci. This multiple foci of infection is usually the result of the infecting material; it may frequently be the result of the douche nozzle. A woman, upon feeling any distress about the genitals, will almost invariably fly to the ever-ready douche bag, and there will attempt to effect a home cure and avoid the "frightful shock" of exposing herself to her physician. It is here that a little knowledge would not be a dangerous thing. With infection of the cervix, the rule is for a rapid spread of the infection to the mucosa of the uterus, tubes, peritoneum and parametrium.

Complications from the urethritis, such as cystitis, vaginitis, nephritis, are but seldom met with in women. Bacteriological examinations in these cases show the presence of the colon bacillus and pyogenic bacteria as causative agents more commonly than the gonococcus.

We recognize *acute* and *chronic* gonorrhea in the female. As a rule we see the chronic cases with acute manifestations, for example, acute Bartholinitis of suppurative type and acute inflammation of the tubes, peritoneum or parametrium, any or all of which may appear at a remote period from the initial infection. Acute specific urethritis and vulvitis, as manifestations of the initial infection will be seen less frequently by the physician except in the class of women who are on the outlook for venereal troubles. The clinical history of the infection in the female differs somewhat from that in the male. In the first place there is less likelihood of there being the sharp, violent initial symptoms. The urethra is most often the seat of the primary attack. This being but a short canal with no erectile tissue, there will frequently be little pain or burning on urination, or if these symptoms should be present they are of such a minor degree that the woman fails to recognize in them the prodromes of a serious disease. Even when the infection is primary in the glands of Bartholini or in the cervix, it may be a period of a week or more before symptoms will arise that will compel the woman to seek an examination. It can be readily appreciated from this at what a disadvantage we are placed in these cases at the outstart in attempting to prevent chronic inflammatory changes of the internal organs.

The spread of the infection may be by continuity of structure, by the lymphatics, or by contiguity. Infection of the uterus takes place almost invariably by continuity from a cervical infection and is usually an insidious process without systemic disturbance, the first symptoms indicative of uterine involvement being an increased leucorrhea and some menstrual abnormality, usually dysmenorrhea.

The following cases are of interest:

CASE I.—A young woman recently married states that her present trouble began soon after her marriage. She first noticed some itching of the vulva and burning on urination. She next developed a leucorrhea and dysmenorrhea. For two weeks before coming to the dispensary, or four weeks after the onset of symptoms referable to the vulva, she complained of intense crampy pain in the lower abdomen. Also constipation, nausea, headache, chills and fever. Temperature at first 102 F., pulse 120. Examination revealed a muco-purulent secretion in the urethra with thickening and tenderness of Skene's ducts, redness about the orifices of the glands of Bar-

tholini and a fluctuating mass, tender to touch filling the entire pelvis and pushing the uterus well up against the symphysis pubis. Suppurative pelvic parametritis, gonorrheal in origin was diagnosed. Vaginal puncture was immediately performed and a quantity of sterceraceous pus escaped. The patient left the hospital in due time in excellent condition. Two months later she presented herself again with an abscess of the left vulvo-vaginal gland from which she was suffering intensely. This was incised and complete recovery obtained. At this time there was no urethral discharge. Internal examination showed the uterus in its normal position and size, with a chronic parametritis of the right side, not tender. The patient had no symptoms referable to the internal organs. Six months later she again consulted me with a large tubo-ovarian abscess of the left side; there were no evidences of any infection of the external genitals. Abdominal section was performed, the mass removed and the patient has been well since. Latent gonorrhea is well evidenced in this case.

CASE 2.—A colored woman was admitted to the maternity department of the Hahnemann Hospital two days before delivery. The vulva was covered with chancroids. These were treated and healed rapidly. The puerperium was normal and there was no infection of the child's eyes. There was an erosion of the cervix when the patient was discharged, otherwise the pelvic organs were normal. Five months later she presented herself complaining of pain in the back and lower abdomen, of a severe lacinating character. Examination showed the scars of the chancroids, no urethral discharge, gonorrheal maculæ, vagina negative, erosion of the cervix healed and uterus normal. The right ovary was enlarged to the size of an English walnut, prolapsed into the posterior cul-de-sac, fixed and very tender to touch. Tube prolapsed, not tender or thickened. Left tube and ovary normal. Parametrium normal. Undoubtedly we had in this case an infection of the right ovary by the lymphatic route.

Let us now consider the symptoms arising from infection of various parts of the genitalia from a diagnostic view point.

1. *External genitalia.* After the average incubation period of three or four days from the time of exposure, the initial symptoms will be an itching or stinging sensation about the urinary meatus associated with painful, bloody urination of varying intensity. Within a short time pain, soreness and

swelling of the vulva will be experienced together with a discharge that is at first slight and serous in character, later becoming profuse, purulent and irritating to the surfaces with which it comes in contact, namely, the outer surface of the large labia and the inner surface of the thigh. With the rapid and early infection of Bartholini's glands, intense pain will be complained of referred to one or both sides of the vulva. On examination during this acute stage the entire vulva will appear hyperemic, swollen and edematous. The effect of the discharge will be noticed on adjacent skin surfaces. On separating the labia, which will be extremely tender to touch, the mucous surfaces will appear congested and bathed in a purulent secretion. Increased hyperemia about the urinary meatus will bring this structure out prominently on inspection. Upon milking the urethra a purulent discharge will be readily expressed, and there will be tenderness of the canal to this manipulation. Pressure over the vulvo-vaginal glands will elicit tenderness or actual pain, and will frequently express from their orifices a milky or pussy discharge. Thorough irrigation of the external genitals to remove the discharge will determine the source, for in the absence of any leucorrhea within the vaginal outlet after this irrigation we can say that the source is from the vulvitis. Consequently if the patient does not complain of any hypogastric pain or distress, we do not make any internal manipulations but consider the infection, tentatively at least, to be localized in the external structures. As the inflammation passes to the sub-acute or chronic stage, usually within a period of ten days to two weeks, the vulvitis disappears entirely. There is subsidence of the discharge and very little discomfort except that arising from a persistent acute Bartholinitis without suppuration. Milking the urethra we will express a sero-purulent or serous discharge. This will persist in the average case for an indefinite period. You will notice in this manipulation along either side of the floor of the urethra a more or less cord-like structure, which will be tender to pressure. These structures represent the ducts or tubules of the glands that have been involved in the gonorrheal infection, which in the chronic stage remain thickened and tender and act as an excellent receptacle for the gonococci to lie dormant. This persistent gleet discharge comes from the tubules and not from the urethra. Frequently the orifices of these ducts will be in the floor of the urethra just within the meatus, ne-

cessitating the separation of the labia of the meatus for detection. It has been my experience that these orifices are more frequently seen outside of the urethra, in the vesicle on either side of and on a level with the meatus, and very close to it. Where these ducts open within the meatus, the continuation of the gleet discharge will frequently cause a swelling and hyperemia of the urethral mucosa with ectropion which may eventuate in the formation of a true urethral stricture. In either case painful urination will continue.

Characteristic of a chronic infection will appear the enlargement of the glands of Bartholini. The appearance is often likened to a "flea bite," a reddened area surrounding each gland standing out prominently on the mucosa of the vestibule. When the labia are widely separated, and called the "gonorrheal macule." So characteristic are these that in the absence of a history of gonorrheal infection a diagnosis may be made from the presence of these maculæ.

These glands likewise harbor the gonococcus for an indefinite period, in fact, it is almost impossible to eradicate the organism from such a racemose gland. So long as the glands remain patent the patient will experience no discomfort. When the ducts become occluded, and this may happen in the acute infection or months later, we have an acute Bartholinitis with suppuration—a vulvo-vaginal abscess. This is easily recognized. The pain is intense and constant, the patient cannot walk or sleep. On the side affected the vulva will be swollen, red, and tender to touch with fluctuation. Uncommonly both glands be involved simultaneously. After a cure of one side by proper surgical treatment it is not uncommon for the patient to return with involvement of the opposite gland. Occasionally if the abscess is not incised or does not rupture the acute symptoms will subside and there will remain a retention cyst of the gland.

Not infrequently we meet with condylomata of gonorrheal origin. These usually develop in the chronic stages, consist of localized hypertrophies of the vulvar mucosa, due to irritation from discharges. They appear as small papillations, reddened or of the same texture as the mucosa of the vulva. They are sessile or pedunculated and conglomerate into masses that will vary in size from that of a match head to a pea or larger. They may be located anywhere within the vulva, the most frequent sites being about the orifices of the glands.

artholini, and within the fourchette. The larger type of condylomata or venereal warts are not so characteristic of a gonorrheal infection. They appear on the outer surface of the vulva and neighboring skin surfaces and may take on considerable proportions. They vary in number from a few up to enough to cover the entire vulva.

Chancroids, though not due to the gonococcus are so frequently associated with gonorrheal infection as to merit our attention. The margins of the labia and the fourchette are the most frequent sites. They may be present anywhere upon the external genitalia and adjacent skin surfaces, as well as upon the cervix and in the vagina. Their multiplicity, inoculation on opposed surfaces, soft base and purulent discharge together with the bacteriologic examination, makes their diagnosis comparatively easy. Unilateral adenopathy is held to be the rule. From my experience a bilateral adenopathy in the inguinal region has been the rule.

Internal Genitalia. Infection of the cervix, whether primary or secondary will show itself as an acute endocervicitis, the diagnostic feature being the presence of the gonococci in the discharge. The mucosa will be hypertrophied, due to the round cell infiltration, the hyperemia and the edema. The external os will become patulous and through it will appear the reddened and swollen mucous membrane. The typical glairy, tenacious, stringy discharge will be profuse. There may be pelvic pain and various reflex symptoms in association, but as a rule constitutional symptoms are few or wanting. The acute stage is of but short duration quickly passing to the persistent chronic endocervicitis in which the hyperemia and edematous condition disappear, the hypertrophy and profuse discharge continuing with frequent involvement of the submucous tissue resulting in enlargement of the entire cervix. Characteristic of the chronic endocervicitis will be the erosion of the cervix, this appearing on one or the other cervical lips or involving both lips and extending well out on the *partis vaginalis*.

As previously stated with cervical involvement we almost invariably have infection of the body of the uterus. This may be evidenced as either an acute or chronic endometritis. In the acute inflammation there will be short, crampy pains in the lower abdomen, pain in the back, headache, gastro-intestinal disturbances, rise of temperature, rarely above 101° F., increased pulse rate in proportion and a profuse watery, purulent

leucorrhea, which is apt to be blood tinged. In this dis will be found gonococci. Locally we find a softened cervix, patulous external os, slightly enlarged uterus m tender to touch or manipulation.

The clinical history of these cases shows the acute in of the endometrium most frequently taking place in asso with a menstrual period. The chronic involvement is di tiated from other types of chronic endometritis only bacteriological examination. We have the general sym of heaviness and weight in the pelvis, backache, occipita ache, nervous phenomena of reflex origin, profuse wate corrhoea, of an irritating character and alterations in th strual flow, dysmenorrhoea being prominent. Locally will be the enlarged, softened cervix with erosions, patul enlarged body, softer in consistency than normal, wi sence of tenderness on manipulations, though at time tenderness may be present. By the clinical history a quisite tenderness on examination it will be difficult greater proportion of cases, to differentiate acute infect the uterine body without adnexal involvement and uterine infection with lateral invasion. As a matter of f two will be closely associated, an acute salpingitis quick early developing from infection of the endometrium.

The diagnostic features of acute salpingitis with its a paniments, oophoritis, peritonitis, tubo-ovarian absces suppurative parametritis, I will not take up in detail as y familiar with their symptoms and the local examination the diagnosis comparatively easy. I would mention jus points: gonorrhoea almost invariably gives rise to a b salpingitis; a purulent salpingitis does not necessarily gi to a pus tube; we may have pyosalpinx without involvem the endosalpinx.

Vaginitis, as a late development, is usually secondary fection of the uterus. The acute inflammation is eviden the pain which will be intense when the patient menst ru vaginal leucorrhoea, with swelling and hyperemia of the v mucosa and extreme tenderness to touch. Least freque the chronic type met with as a granular vaginitis, appear the fornices and upper half of the vaginal canal, especially the posterior wall.

TREATMENT.

In the acute stage we must enforce the general hygienic regulations of gonorrhea. The diet should be free from fats, sweets, condiments, acidulous or alcoholic drinks; attention should be given to the skin and to the bowels to secure elimination and sexual excitement should be interdicted. "Absolute rest" is one of the most important adjuvants in woman, and this I mean rest in bed. When we say rest to the ordinary woman she will probably stay at home but will be constantly on her feet attending to various duties. In the acute attack this is just what we wish her to avoid. So long as the patient is allowed to be up and about we have an increased congestion of the affected parts, increased distress from chafing and increased discharge. As a result the patient will be tempted to use the douche for the purpose of cleansing the parts or if the doctors call for one douche daily she will use two or three. With each superfluous manipulation there is increased liability to spreading the infection, especially is this true where we are fortunate enough to have the infection limited to the external structures.

Clinics where this absolute rest is enforced, as the Fueger Clinic of the Vienna Hospital, show decidedly better statistics in preventing the extensive spread of the disease in the general organs and a shorter course of the infection. Possibly one of the greatest advantages of this absolute rest is the personal supervision by the physician of the general treatment which it necessitates. We always have to deal with carelessness, induced by ignorance, in gonorrheal cases and much harm may result from it. Where the patient cannot be confined to bed and treated by a trained nurse, she should be carefully instructed by the physician concerning the danger of spreading the infection, and the absolute necessity of thorough irrigation of the vulvar orifice with an antiseptic solution before inserting the douche nozzle in cases where the use of a douche is directed. Let us now consider the treatment of the different manifestations of gonorrhea.

The External Genitalia. In the acute stage, when we believe the infection is limited to the external organs, we have the following rules:

- 1. Never examine internally.
- 2. Do not order douches.

With the presence of a urethral discharge we should be applications to this canal. I have obtained the best results with silver nitrate solution, beginning with a 2 to 4 per cent. solution and making a daily instillation until pain on urination ceases and the discharge becomes sero-purulent. Instillation may be made with an ordinary hypodermic or Keys-Ultzma syringe fitted with a short, straight, hard rubber or silver nozzle. A medicine dropper is used in some clinics. About 20 drops are used at each sitting, the meatus being held against the withdrawal of the syringe to retain the silver solution for two to two minutes. With the cessation of the acute symptoms every second or third day will be sufficiently frequent for injections, and with the change of the discharge to a serous milky character the substitution of zinc sulphate, 10 grains to the ounce of water, will aid materially in clearing it up.

The chronic gleety discharge from Skene's ducts will persist for weeks and months, unless we are successful in introducing our germicide directly into the tubules. This can be done readily in some cases, and with decided difficulty in others, by using a blunt pointed hypodermic needle. The frequency of application will depend upon the results obtained; every second or third day, as a rule, being sufficiently often.

Among other medicaments that may be used instead of silver nitrate are, argyrol, beginning with a 5 per cent. solution and running up to 25 per cent.; protargol, from a .5 per cent. to a 2 or 3 per cent.; irrigations with potassium permanganate 2 per cent. solution using a return catheter; or urethral bougies of protargol. For the associated vulvitis frequent irrigation with an antiseptic solution three or more times daily should be used. Bichloride of mercury, 1-2000, or potassium permanganate, 1-2000 are preferred. During the stage of hyperemia vulvar pads moistened with a hot antiseptic solution should be worn between the intervals of the irrigations. With the subsidence of the congestion, dusting powders composed of boracic acid, calomel and starch of equal parts or tannic acid and podium of each equal parts should be used. The patient should be cautioned to wear a vulvar pad to catch all discharges. These should be burned as they become soiled.

For infection of the glands of Bartholini, in the acute stage without suppuration, hot antiseptic applications to the vulva and absolute rest in bed are to be ordered. This will frequently control the inflammation and leave the chronic discharge alone.

be dealt with. In a certain number of cases this will persist for weeks or months and eventually clear up. The direct infiltration into the gland of a 4 to 8 per cent. solution of silver nitrate or crude carbolic acid by the use of a blunt hypodermic needle will be of decided service. In several cases in which I have used these applications, however, I have induced occlusion of the ducts followed by abscess of the glands. Vulvovaginal abscesses should be incised, curetted, cauterized with crude carbolic acid and packed with iodoform gauze. Complete healing will be obtained within a week's time in the average case. The use of ethyl chloride locally is usually all the anæsthetic needed in these cases.

The smaller type of condylomata will disappear by the use of a bichloride of mercury wash several times a day, together with the use of calomel and starch as a dusting powder. Tincture of Thuja, locally, is said to afford excellent results. If the condylomata are extensive, incision and cauterization of the base with nitric acid, followed by the use of dusting powder will be the quicker remedy.

Chancroids are quickly healed by cauterization with fuming nitric acid, followed by the use of an antiseptic wash and the calomel and starch dusting powder.

Internal Genitalia. Acute endocervicitis is to be treated by rest in bed and hot douches only. The douches should be given every three hours during the first two or three days, then every four to eight hours according to the results obtained. They should be hot (110° to 120° F.) and should contain bichloride of mercury, lysol or potassium permanganate. From three to four quarts should be used each time, with the patient on the douche pan. With the subsidence of the acute symptoms we begin local applications to the cervix and the use of tampons. As a local application we may use silver nitrate 4 to 8 per cent. solution; Churchill's tincture of iodine; crude carbolic acid or zinc sulphate solution. Local applications are always called for to heal erosions. Care must be used to remove all of the cervical discharge. On account of its tenacious quality, this may be difficult. The use of sodium bicarbonate solution or the Bier's suction apparatus will do this quickly. Especially valuable is the Bier's suction apparatus. It will cleanse the entire cervical canal in two or three minutes, and in addition if we allow the apparatus to remain in situ for 15 or 20 minutes we will have the advantage of its therapeutic

effect. I prefer to use a Ferguson speculum and fill it a quarter full with an 8 per cent. silver nitrate solution. It remains in two or three minutes when the end of the speculum is depressed and the excess allowed to run off. The remaining silver solution is removed by cotton. As the speculum is gradually withdrawn, the walls of the vagina and its numerous rugæ straightened out by the speculum are painted with the silver solution. In this way we allow our germicide to reach the entire cervical canal, without forcing any of the discharge into the uterine body, such as we are liable to do in using an applicator to this canal; at the same time we get rid of any infectious material in the vagina and likewise apply the therapeutic agent for an associated vaginitis. This application should be repeated every second or third day. After the application a tampon is introduced. Ichthyol in glycerine, 20 per cent, I have found most valuable; also chloral hydrate in glycerine 15 per cent. when there is much pain and inflammation of the vaginal walls. Usually a tampon every third day and hot douches on the intervening days is sufficiently frequent.

The treatment of acute endometritis must at all times be expectant. Absolute rest in bed, the ice bag to the hypogastrium, hot antiseptic douches together with the properly selected remedy to control the associated symptoms. There must be no intra-uterine manipulations of any sort. With the subsiding of all acute manifestations, the usual local applications will be called for. Frequency of douching will depend on the amount of the discharge and the local evidences of infection. Ichthyol tampons are again of special value, and the Bier treatment may be cautiously employed. The local treatment if persisted in for a sufficient length of time will clear up most cases of endometritis. In some persistent cases of leucorrhœa and menorrhœa, curettage and some form of local application may be called for. Suppurative condition of the pelvic organs and tissues will demand proper surgical interference. Inflammation without abscess formation may be treated medically or surgically.

I wish, in conclusion, to enter a plea for the conservative treatment of pelvic inflammatory states without suppuration, especially for cases of salpingitis or oophoritis of gonorrheal origin. The greater proportion of these cases are being operated upon, the tubes and ovaries being removed, possibly with disastrous results in some cases. Indiscriminate operating upon these cases

seems to me to be wrong in view of two facts: (1) That the majority of these patients are young women, and (2) that clinics where the medical treatment is skillfully followed show excellent results in the way of cures. Frequently surgical interference is indicated solely because the patient has not the time to give to the slow, more protracted expectant method. The medical treatment *does* require time, months as a rule, and this is its chief disadvantage. When the woman has the time and patience it should always be advised and if carefully carried out on the part of both the patient and physician will yield as good, if not better results, than the operative method. Some will argue against it because of the likelihood of recurring attacks of local inflammation following some indiscretions. In response we can sum up the question as follows: If we operate we will have a morbid state in the patient to deal with, for the operation must be complete to avoid a future operative procedure, and any attempt at conservative surgery on the basis of gonorrheal inflammation is always a decided error on the part of the operator. If we treat expectantly or medically we have a morbid state in the patient to deal with because we can never bring about a regeneration to the absolutely normal of a chronically inflamed tube and ovary. Which is the lesser of the two evils? I believe the latter from personal observation. The medical treatment is always to be first recommended, the patient being advised of the length of time required, and then with her consent, persistently and carefully carried out. There are but few women who will not be grateful to us for conserving or attempting to conserve all the organs with which Nature endowed them and meant them to retain.

FOR INTRACTABLE VOMITING OF PREGNANCY.—M. Steffen (*Archives de Med. et de Chir. Spec.*) recommends:

℞ Tinct. iodini |8 (gtt. xij)
 Aquæ destillatæ 150 | (℥v)
 or ℥j of the water may be replaced by cherry laurel water.

M. S.: Tablespoonful every two hours in half a glass of sugar water. The following may be given:

℞ Chloroformi 60 | (℥ij)
 Tinct. iodini 6 | (℥iss)

M. S.: Five drops morning and evening in a glass of seltzer water.—
Led. Review of Reviews.

MIGRAINE.

BY

H. P. FARINGER, M. D., MOUNT HOLLY, N. J.

MIGRAINE, or bilious sick headache, is a periodic auto-intoxication of the system, due to urea, uric acid, urate of soda, or the allied nitrogenous waste products; characterized by a painful neurosis of the sensory nerves, of the head, face, neck, accompanied by malaise and usually with nausea and vomiting, with indisposition for mental and physical exertion, lasting from a few hours to several days. To analyze this condition a little more carefully, you will notice that it differs somewhat from those found in text books.

In the first place, I wish to present some proof of the existence of auto-intoxication, by the fact that all of these patients are First, usually large consumers of albuminous and nitrogenous foods; in other words, good livers, who exercise little and eat regularly; second, that their urine is of high Sp. Gr., and is high in the nitrogenous waste products; third, that they are small water drinkers, thus causing a concentration of the poisonous blood with nitrogenous waste products; fourth, and lastly, by cutting off the nitrogenous and Xanthin foods and increasing the intake of liquids, the patients are better in a few days. Thus we have four points which tend to show that the trouble is due to an over-production or retention of nitrogenous substances in the blood causing a self-poisoning of the system.

Other causes precipitating an attack, are nervous excitement and strain, poor ventilation in crowded assemblages, excessively acid food causing a lowering of the alkalinity of the blood, over-exertion of the body causing acid products in the muscles, deficient supply of pure water taken into the system, over-eating of nitrogenous foods, with sedentary habits. All these, and many more, which tend to lower the alkalinity of the blood by de-oxidation and increasing the acid radicals in the circulating medium, in an individual with hereditary nervous tendencies, will cause this disease.

Hereditary influences are important and I would say that without this tendency this disease or class of symptoms could not be diagnosed as true migraine: in true migraine, it is always a concomitant and it is almost, if not always the rule.

is inherited from the mother's side and not the father's. Thus if the father was subjected to attacks in his life and the mother not, the offspring would not be likely to inherit it. The reverse I have always found true, that is, if the mother was affected, her children most always inherit it from her, and her first children were the most severely affected.

The poisons which give rise to migraine are chiefly, urea, uric acid, Xanthin, urate of soda, etc. But it is not the excretion under or above the normal of these products that causes these attacks of headache, but the retention of these products in the system, blood, tissues, etc.

To make the matter a little more plain, I will have to quote from several authors on uric acid, which show that the formation and retention of these products in the system, is due to several causes.

First, we know that the natural chemical reaction of the blood, is alkaline, due to the presence of $K^2 CO^3$ and $Na^2 CO^3$ and that any increased formation of uric or any other acid tends to lower the alkalinity of the blood. This renders the uric acid less soluble, or causes it to become colloidal, in which form it cannot be excreted, and is driven from the blood current into the tissues where it is deposited.

By keeping the blood alkaline, up to the normal point, it causes the uric acid to combine with $Na^2 CO^3$ and the reaction forms urate of soda, and CO^2 both of which are more readily thrown out of the system.

Muscular action causes sarcolactic acid to be formed, this acts the same as any other acid in neutralizing the alkalinity of the blood. Thus after the gradual accumulation of these products in the system, we have an attack of migraine, with the typical symptoms. During this period the patient cannot, as a rule eat, the system frees itself from the stored products of the faulty metabolism and other toxic agencies, as can be shown in the urine, and the attack is ended. The patient feels well the following days until another attack comes on.

I stated in the definition "A painful neurosis." A neurosis is an affection not having a gross pathological lesion. The pain being due in this particular disease to the irritating effects on the nerves and nerve centers in the brain; of this poison circulating in the blood. In all the autopsies examined for pathological lesions in the brain and nervous system, none have been found. Therefore, we must assume that this peri-

odic condition depends not on a pathological lesion in any particular place in the body, but on an irritating poison in the blood.

I wish to say here also, that most of the periodic and continual neuroses and neuralgias that are not due to malaria, are due to uricacidæmia.

SYMPTOMS.

An attack of migraine, usually starts with a vague sense of fatigue and some slight blurring of vision, accompanied by gradual oncoming of pain on one side of the head. This pain is so distinctly confined to one side of the head, as to attract special attention. It is accompanied by throbbing carotids on that side, and the temporal artery stands out prominently. Pain is located in the eye ball, temple, side of the head over the eye down the back of the head and neck, and is of an agonizing character. Light hurts the eyes, as does noise the ears. Pupils may be contracted. Motion going up or down stairs or lying prone causes aggravation of pain.

Often after suffering severe pain for 12 to 24 hours it suddenly ceases for half an hour and gradually comes on again on the opposite side of the head to remain 12 to 24 hours longer. During this time the patient cannot eat, and if he does it adds to his suffering in the way of nausea and vomiting. The patient, by the way, often relieves an attack by ejecting a large amount of undigested and highly acid food from the stomach.

Usually Nature during this period very accommodates itself and suspends digestion; as I have often noticed that any food taken just before or after an attack begins, will remain undigested and finally vomited. At the same time peristalsis is suspended to a great degree.

Another noteworthy condition, which is very often present is a dilated stomach, which may have been caused during youth, at which time this disease usually makes it appear and continues all through life being most severe during middle life. These cases, being large eaters when feeling well, overload the stomach, and thus invite poor digestion, absorption of mal-digested products, causing frequent recurrence of attacks. Constipation is usually present.

It has been said that this disease is more prominent in professional people and brain workers, than it is in the ignorant

and uneducated. While this may seem true, it is not due to education or brain work *per se*, but entirely to the fact that the uneducated are more actively engaged, and less highly nitrogenized, being thus less susceptible by having a less accumulation of nitrogenous waste material circulating within their bodies. I can invite an attack very surely, by living a quiet, inactive life for a week and then doing a hard day's work at manual labor, until I become physically tired. The next day, I am sure to have an attack. This I have also proven to my satisfaction in patients suffering with migraine. There is a vast difference between headache and migraine. The one depending on heredity, uricacidæmia, and being distinctly neurotic in tendency. The other *not* depending on any one of the three above mentioned causes, unless it is uricacidæmia. In my own case, I started to have these attacks when about seven or eight years of age, having them every week or two, until ten or twelve years, then from ten to twenty-one about every three to four weeks, and after starting practice, they became more frequent, coming as often as once a week and oftener, until I adopted the elimination treatment and cut out nitrogenous foods. My heredity is distinct for generations, as are six or seven other families that I know personally. Frequent attacks soon cause loss of flesh, anæmia and weakness. I noticed in one case, a lady about the climacteric age, developed epilepsy, alternating with migraine showing another neurotic tendency.

Diagnosis: Not difficult. But the exact and numerous concomitants as causes, are often hard to locate and correct.

Prognosis: As to cure it has been very uncertain and unsatisfactory, until of late when systematic elimination and hygienic treatment has been instituted.

Treatment: In this condition, as in consumption, the patient virtually cures himself, that is, if he follows directions, implicitly and unswervingly. You can therefore see for yourselves, how few of these patients are cured or even benefited, by drugs alone; as they are not bed fast but can go around and the temptations for overstepping the boundary line, are so many, that few really have the power to resist, eating and doing those things which eventually lead up to an attack. We can truthfully say a systematic course of hygiene, dietetics, exercise, hydro-therapy and medicine will do much for these sufferers.

1. *Hygiene*: Warm baths at night only; no cold plunges or sponges for these patients. Woolen underwear, body well pro-

tected. Usually these patients dislike cold weather, and always feel better in the summer. The reason for this is that uric acid is excreted better, when the body and capillaries are relaxed by warmth. The South and the warm weather is then the place, for these patients who can afford it. When patients have these attacks, oftener than once in two or three weeks they become anæmic and cirrhosis of the liver, kidneys, and atheroma are likely to occur unless they are lessened.

2. *Diet*: This is a most important part of the treatment. This consists in eliminating all nitrogenous elements of food, such as red meats, pork, veal, beans, highly seasoned foods and condiments. Liquor of any kind causes acidity of the blood. Young meat, such as lamb and veal, contain more uric acid than older beef and mutton which contain 3.4 grs. per pound outside of the actual nitrogen. Kidney 3.5 grs., lamb 6.5, fish 1.0 gr., beef tea 7 grs., still more in cocoa, 59 grs. coffee, 70 grs. tea largest 175 grs. From this list we can see the necessity of cutting out these articles of diet. Overeating, a most prolific source of toxin formation, causing large quantities of lactic, hydrochloric and butyric acids which when absorbed tend to neutralize the blood, thus predisposing and causing an attack.

What can these patients eat?

1. Milk containing $\frac{3}{4}$ per cent. albuminoids and little N.
2. Cheese containing 33 per cent. albuminoids and little N.
3. Bread containing 8 per cent albuminoids and little N.
4. Oatmeal containing 12 per cent. albuminoids and little N.
5. Wheatena containing 16 per cent. albuminoids and little N.

Besides plenty of apples, oranges, grapes, green vegetables, peas, string beans, fish, oysters, clams, plain soup, potatoes and starchy food, cauliflower, water cress, celery, etc. Dried fruits will not do, as they contain little or none of the vegetable juices.

Hydro-therapy: This, in my experience, is the best weapon as a curative agent, obtainable. Without its thorough administration little good can be accomplished, and with it more can be done than with all other agents together. Fifty to 80 ounces of water should be taken in 24 hours systematically and daily. Here is where the trouble lies, with most patients. Water is distasteful to them, some will claim to drink considerable, but as a fact do not take much over 30 ounces. They must take more if they want results, and the only way to know how much they do take, is to measure it each morning, and drink the full

count before retiring. I know of families who have adopted this plan and seldom have any need for a physician. The quantity of urine that should be passed in 24 hours amounts to 60 ounces and should contain not over 20 mg. per c. c. of urea.

Exercise: A very important step in keeping the attacks in remission and one that can do much harm if not taken systematically. Thus a patient subject to attacks cannot expect anything but indifferent results if he exercises excessively one day, then none for three or four days and then followed by excessive exercise again. Regular and systematic exercise, so as not to produce an over-production of waste products, in the system is the thing to be sought in these cases.

Drugs: The homœopathic remedies for this disease you are familiar with. There are two important drugs which are useful in physiological doses, sodium salicylate, 10 to 15 grains t. i. d., and piperazine, 5 grains t. i. d.

Palliatives are coal tar derivatives, morphine, chloral and Cannabis indica.

ADENOIDS.—In the slighter cases of adenoids, with some enlargement of the tonsils, a weak alkaline lotion, such as the following, should be instilled through the nose and fauces so as to free the lymphoid tissue, so far as possible, from micro-organisms, and to prevent crusts forming upon the surface:

℞ Sodii bicarbonatis, gr. v.
 Boracis, gr. v.
 Sodii chloridii, gr .ij.
 Glycerini, fʒj.
 Aquæ, ad. fʒj.

Astringents, such as the following, may be painted on the tonsils and adenoid tissue:

℞ Aluminis, ʒij.
 Acidi tannici, ʒss.
 Glycerini, fʒss.
 Aquæ, rosæ, ad. fʒij.

Or:

℞ Iodi, gr. ij.
 Potassi iodidi, ʒss.
 Glycerini, ad. fʒj.

Tonics should be administered, such as the iron phosphate. If the patient is no better for the treatment, and the symptoms of enlarged tonsils and adenoids still persist, then these growths should be removed.—*Practitioner.*

EDITORIAL

THE PLACE OF VACCINE THERAPY AND THE OPSONIC METHOD IN PRACTICAL MEDICINE.

A NEW fad has arisen within the ranks of the medical profession, namely, the determination of the opsonic index of the blood of individuals suffering from bacterial diseases and the injection of dead cultures of the infecting organisms into the circulation for the purpose of bringing about a cure. The battle for and against the opsonic treatment of Wright, as it is called, is being waged with all the vigor and enthusiasm of a national political campaign. Wright and his enthusiastic followers have proclaimed the time is at hand when the opsonic will combat most forms of bacterial infection in the human body with as great certainty and accuracy as the physicist measures the force of gravity or the astronomer forecasts the eclipse of the sun. Others condemn the methods and theories of Wright as unscientific, inaccurate and positively devoid of any practical value.

The medical practitioner has little time or desire to follow the various details and arguments which have been put forth for and against the opsonic method. His sole interest lies in trying to discover whether there is anything in the method that may be of practical value in restoring the sick to health.

After rather an extensive review of the literature on the subject we have been forced to conclude that for the ordinary doctor or surgeon, the treatment of disease by bacterial vaccine and the opsonic method with the present technic offers little of practical value.

The reasons for this statement are many. In order that our position may be made clear it is necessary to review a few of the fundamental principles of Wright's method of treatment. The first step in carrying out this treatment in a given case is to determine the variety of infecting organism present. This is done by isolating the organism having been isolated, and let us suppose for example that it is the tubercle bacillus, the next step is to obtain a speci-

men of the patient's blood and determine the number of tubercle bacilli a given number of leucocytes will take up as compared with the same number of leucocytes from the blood of a normal individual. The relation between the bacteria-absorbing power of the leucocytes of the normal and abnormal blood is known as the opsonic index. A culture is now made of the infecting organism and when it has attained a suitable growth the bacteria are scraped into one per cent. salt solution, sterilized at 60° C. and standardized to a certain number of micro-organisms per cubic centimeter. This standard suspension of bacteria is known as a bacterial vaccine. A measured quantity of this vaccine is injected into the subcutaneous tissues of the patient, and estimations of the opsonic index are made daily. Following the injection there is usually a decrease in the opsonic power of the blood, known as the "negative phase," which is followed by a rise in the opsonic index which may persist for several days—the "positive phase." As soon as the positive phase begins to diminish another injection of the vaccine is made. In this way the size and interval of the dose is controlled. According to the views of Wright some action takes place between the tissues and the dead micro-organisms whereby substances which act on the bacteria in such a way as to render them easy prey to the leucocytes are produced.

Having thus briefly outlined the *modus operandi* of the opsonic method and vaccine therapy, we are now in a position to understand the objections to it from the standpoint of the medical practitioner. In the first place the isolation of a single micro-organism as the cause of a pathological condition is not always possible, as we know many diseases, consumption for example, are the product of a mixed infection. Of course it may be possible to make two sets of cultures, two forms of vaccines and two separate opsonic counts, but this would materially complicate an already long and intricate process. Again, Wright has frequently pointed out, the correct estimation of the opsonic index is only acquired after months of experience and constant practice. Indeed, if the reports of many observers are correct, the opsonic counts, even in the hands of experts, vary so widely that the percentage of error exceeds what is usually considered normal limits. Again the time consumed in making the vaccines, the daily opsonic determination and other details of the treatment, is so great that

four cases would be as many as a physician could treat at a time. There are those who propose to get away from the objections by using "stock vaccines" and regulating the dosage by the clinical symptoms rather than by the opsonic index. Wright, however, has gone to considerable effort to impress upon the profession the uselessness of "stock vaccines" in the majority of diseases and says that those who depend on the clinical symptoms as a guide to dosage, instead of the opsonic index, are not only doomed to failure but also will do a great deal of harm.

Having detailed the practical objections to the employment of vaccine therapy according to the technic now advocated by Wright let us consider the subject from a theoretical standpoint, for, as some of the advocates of the opsonic method have truthfully said, if the method is theoretically sound there is reason to believe that the difficulties of technic may be overcome and the system simplified. The theoretical objections to Wright's method are quite numerous. Thus we know that opsonins are only one of the many substances concerned in the production of immunity and there is no proof that the amount of opsonin present is a direct and positive index of the degree of immunity in a given case. Again Wright assumes that if the leucocytes contain a large number of bacteria we can conclude that the resistance of the organism to the infective agent is high. On the other hand, such an eminent authority as Dr. Munch, Director of the Department of Experimental Therapeutics in the Eppendorfer Hospital, states that while the action of opsonins upon bacteria, and their role in the process of phagocytosis is established beyond doubt, it can hardly be said that the phagocyte acts as the bactericidal agent in the struggle of the organism against the exciting cause of the disease. Carl Fisch states that "a normal opsonic index does not exist, and we have no means to determine what the normal condition should be. Therefore, conclusions from such an index in disease are not justified."

While we believe that with the present technic, at least the treatment of the sick by bacterial vaccines as advocated by Wright is impractical in medical work, and while even from a theoretical standpoint there are many dubious points in the hypothesis, there can be no question of the fact that in many instances good results clinically have followed the injection of bacterial vaccines. Wright, therefore, deserves the credit

however wrong he may be in his theories or however superfluous may be the determination of the opsonic index, of having demonstrated the clinical value of using bacterial injections, especially in chronic localized infections. Bacterial vaccines are not cure-alls and our knowledge of their scope and dosage is still so limited that positive rules cannot be laid down. Their use, as a rule, is harmless and where they do not interfere with other methods of treatment they are well worth a trial in obstinate cases. The consensus of opinion is that vaccines prepared from the organisms obtained from the individual patient are more effective than "stock vaccines." Whether the determination of the opsonic index is a necessary or even a useful method of determining the proper interval and dose for administering the vaccine is yet to be decided.

It has been suggested that the indicated homœopathic remedy may be quite as capable of increasing the opsonic index of the blood as bacterial toxins. Perhaps the homœopaths may induce Wright to make some investigations along that line or perhaps they may be inspired to test it for themselves. If this fact could be established there is no doubt but that it would assure homœopathy a more prominent place in modern medicine.

ENTERTAINING THE INSTITUTE.

It has been the custom, ever since the American Institute of Homœopathy was founded, for the meetings to be held in some locality to which the Institute was invited by the local profession. In the earlier days, when the membership of the Institute was small, this plan no doubt was the ideal one. With the growth of the Institute, however, this policy has become more and more unsatisfactory both to the Institute itself and to the local profession who are often seriously embarrassed by the problem of furnishing adequate and suitable entertainment for the visiting members. It is by no means a simple matter for a community of fifty or sixty, and even at the most five or six hundred homœopathic practitioners, to provide for the places of meeting and the social entertainment of from twelve hundred to two thousand brother practitioners and visitors. Then again the Institute is more or less limited in selecting a place for a meeting as it must wait for an invitation to a community before it can even discuss the desirability of go-

ing there. In view of the above mentioned facts we believe the Institute should relieve the burden from the local physicians, which in many instances has been indeed onerous, and should provide for its own entertainment and pay its own expenses. This would give our national organization the privilege of selecting as its place of meeting any section of the country where the interests of homœopathy seemed to demand its presence, and would assure better accommodations for the meetings and for the comfort of the individual members.

THE TREATMENT OF CHRONIC GOUTY CONDITIONS.

WITH the gradual decline of the theory that gout and allied states were due to an excess of uric acid in the blood and tissues, we find a corresponding change in the therapy of this disease. We are no longer eager to prescribe the latest "uric acid solvent," and are apt to smile at the ignorance of the detail man who commends the waters of a newly discovered spring because they contain a large per cent. of uric acid solvents. Of course the public are not yet on to the change of style in the medical attitude toward gout and allied conditions, and how often we are appealed to for "something to get this uric acid out of my system."

To physicians the overthrow of the uric acid theory comes as a misfortune in some respects. It was so easy to explain to the patient that his headache, his melancholia, his lassitude, his painful muscles or joints, his nasal catarrh or his failing vision were all due to the presence of uric acid in his system. And again it was so easy for the patient to understand such a reasonable explanation and it was so satisfying to him to have a disease which was not only popular but even, to a degree, aristocratic.

With the passing of the uric acid theory considerable attention has been paid to the digestive organs as the structures primarily concerned in the production of gout. Luff, for instance, states that gout is the result of faulty metabolism in the intestines and liver, with the result that toxins are produced, which lead to an auto-intoxication, which, in turn, causes a deposition of sodium urate in the joints. With this theory in mind he claims to have obtained excellent results in acute gout by the administration of a mercurial followed by a

saline purge, cutting off food for twenty-four hours and the use of wine of colchicum internally. In the treatment of chronic gout he relies principally on colchicum and guaiacum, together with large quantities of water with or without alkaline diuretics. The diet he considers a most important part of the treatment since he holds that the gastro-intestinal tract furnishes the source of the toxic substances which produce the disease. A diet should be selected which is best suited to the needs of the individual, reducing the quantity of but not excluding meats. More important than the particular kind of food, Luff believes, is moderation in eating.

Whether his hypothesis is correct or not, we are not prepared to say, but his practical hints as to treatment commend themselves as rational and worthy of careful consideration.

DOCTORS POOR BUSINESS MEN.—Some ideas concerning the practical business side of the doctor's life have been expressed by Dr. J. E. Dildy, in the *Texas State Journal of Medicine*, in such a forceful way and with so much frankness, that we take pleasure in quoting them. He says that, we are professional men in every sense of the word; we have the mental labor of lawyers, the moral standing of ministers, the technical knowledge of organized artisans and the business qualifications of school children.

"The average man will give a lawyer \$300 to \$500, together with a lifetime praise, to keep him out of the penitentiary for from two to ten years, and at the same time he will raise a phosphorescent glow and a kick that can be heard around the world if a doctor charges him \$50 to \$100 to keep him out of hell for a lifetime. We are the only people under God's theareal tent to-day who keep open shop 24 hours each day and 365 days in each year. We are also the only laborers to keep on working for people who do not pay. I can carry my part of charity with as good a grace as most men. I can go through rain, snow or mud and do my best, provided the case is one of worthy need, but to reward continually downrightascality, willful drunkenness ad wanton laziness is getting out of my line."

The breezy character of these observations only add to their value. The sapient Texan says:

"The average doctor tries to do much work. Every doctor wants everybody to patronize him. He likes to be going night and day, rain or shine, Sunday or week-day, hot or cold. This is a business mistake. It wears a doctor to a frazzle. It gives him no time for bill collecting and business matters; no time for patients who naturally feel neglected and are slow pay as a consequence. A doctor can do better work, more good, and build up a more enviable reputation if he cooly takes his time and is careful and painstaking in his examinations."

The business side of practicing medicine is worthy of discussion, and general medical societies will do wisely to introduce into their programs an occasional paper such as the one above referred to.—*New York State Journal of Med.*

GLEANINGS

LOCAL REACTIONS IN THE DIAGNOSIS OF TUBERCULOSIS.—Arthur T. Laird, M. D., in the *N. Y. State Jour. of Medicine*, gives an excellent review of Wolff-Eisner's work on the ophthalmic and cutaneous reactions in tuberculosis.

The credit of originating the ophthalmo-tuberculin test has frequently been assigned to Calmette, but Wolff-Eisner demonstrates his own priority in suggesting its clinical use and prefers the designation "Conjunctival reaction" to "Ophthalmo-tuberculin reaction," which is the term used by Calmette.

He recognizes the value of the subcutaneous tuberculin test, but thinks it is not entirely devoid of danger beside producing severe general symptoms. The temperature must be carefully observed for some days before and after the test. The temperature is, moreover, not as accurate and delicate an index of the body's reaction to tuberculin as could be desired. The test cannot be readily given without certain apparatus for preparing dilutions, and its field has been therefore somewhat limited. All these disadvantages are overcome, or diminished, in the new local reaction tests.

The technic of the tests, the results of clinical observation and finally the theoretic considerations on which they are based are discussed in turn.

Technic of the Cutaneous Test.—The skin is first rubbed with alcohol. The scarification need not be extensive, hardly more than a point, and may be made with any sharp instrument or with Pirquet's "Schaber." It is an advantage to have a platinum instrument, as it is readily disinfected. There is, however, very little risk of infection. It is unnecessary to do more than reach the superficial lymph vessels and it is an advantage not to draw blood. The scarification may be made through a drop of tuberculin previously, placed on the skin, or the tuberculin may be applied after the scarification is made. A twenty-five per cent. solution of Koch's old tuberculin is used. Control vaccinations with sterile salt solution or with glycerin and carbolic acid solutions in the strength in which they are found in tuberculin (five per cent., or one-tenth per cent.), are made, as in certain individuals the skin is greatly irritated by the slightest traumatism. It is better to employ a separate lancet for the control test.

Technic of the Conjunctival Test.—The patient's head should be tipped well back, the under lid should be supported by the finger for half a minute after the diluted tuberculin is dropped in the eye. The eye should not be rubbed afterward. A freshly prepared one per cent. of Koch's old tuberculin in eight-tenths salt solution is used and one drop is placed in the eye with a small glass pipette or dropper. The use of purified tuberculin prepared by Calmette's method is considered unnecessary. Calmette's one per cent. solution of purified tuberculin is in the author's opinion too strong and may do harm.

The Course of the Cutaneous Reaction.—In a positive reaction, after a few hours a reddening appears, which usually reaches its intensity between the twelfth and twenty-fourth hour; it may be moderate, marked or excessive; may disappear within forty-eight hours, or last for weeks; there may be besides hyperemia, exudation and infiltration causing the formation of a palpable papule.

The Course of the Conjunctival Reaction.—After six to twenty-four hours the conjunctiva begins to redden and in reactions of the mild grade nothing more is noticed. In reactions of the second grade the redness is more marked and there may be muco-fibrinous exudate. In the third grade reactions there are all the appearances of a severe conjunctivitis. When the reaction is very severe boric acid solutions or a combination of a three per cent. cocain solution with a one-tenth per cent. of adrenalin has been found useful, by the author, in relieving the discomfort. He has observed no unfavorable results from the tests. At least ten thousand tests have been reported by other workers. In a very few cases there have been disagreeable after effects, a prolonged conjunctivitis following Calmett's ophthalmo-reaction (*Boston Medical and Surgical Journal*, *clviii*, 1908). Still care must be used. The author does not consider ordinary conjunctivitis a contra-indication. Tuberculosis of the eyes is a contra-indication, and in many such cases the test would be unnecessary. In this connection it is surprising that ophthalmologists using tuberculin in the treatment of such cases have not discovered the reaction. Diseases of the uveal tract, present or past, are contra-indications and it is wise to ask the patient whether he has had any such trouble with his eyes. In children there has sometimes been a lighting up of a phlyctenular conjunctivitis. As this disease is almost always a scrofulous manifestation it should be remembered that scrofulous children possess a hypersusceptibility to the poisons of the tubercle-bacillus and only weak solutions should be employed in making the test if indeed it is used at all.

Failure to react to either test, in case of undoubted tuberculosis, the author considers an unfavorable prognostic sign, indicating that the organism lacks the capacity of reacting against the poisons of the disease with its protective forces. Those cases, in the first stage of the disease, failing to react, have, in his experience, done badly. A much larger proportion of advanced progressive cases fail to react than those in the earlier stages.

The time of the appearance of the reaction, especially of the cutaneous reaction, is considered to have considerable prognostic value. A promptly appearing severe reaction indicates a favorable prognosis. The more severe the reaction the better is the prognosis. A quickly occurring mild reaction, or the failure to react, suggests an unfavorable prognosis. A delayed mild reaction indicates a healed or latent lesion. These principles apply also, he believes, to the reactions from the subcutaneous injection of tuberculin.

Pirquet, on account of the frequency with which adults react to the cutaneous tests, has considered its field of usefulness limited largely to the study of tuberculosis in children. Wolff-Eisner has found that many adults do not react, though a much larger proportion do than when the conjunctival test is employed. He considers that the cutaneous test reveals the presence of latent or healed tuberculosis while the conjunctival test shows the presence of more or less active lesions. The great value of

the cutaneous test, he thinks, is as an aid to prognosis. The conjunctival test is a much more valuable diagnostic procedure.

Wolff-Eisner's theory of the mechanism of tuberculin reactions is substantially as follows: Individuals with tuberculous lesions have all the time, in their blood bacteriolysins for the tubercle-bacillus. All tuberculin contain at least fragments, "splitter," of tubercle-bacilli, and when these come in contact with the patient's bacteriolysins, endotoxins are set free from these fragments of bacilli which cause the phenomena of the reaction. Analogous phenomena have been observed in the study, by the author, of immunization to pollen in hay fever, and in Pirquet's study of the "serumkrankheit" as well as in the investigation of immunity in various acute infectious diseases. It is noted that the frequency with which convalescent typhoid fever patients react to the conjunctival tuberculin test may be due to the abundant production of bacteriolysins, so abundant that they affect not only the typhoid bacillus but other bacteria as well.

THE SIGNIFICANCE OF PAIN IN PELVIC DISEASE.—Speaking on this subject, Novak says: 1. A careful physical examination is of first importance in the diagnosis of pelvic disease, but interesting information will also be derived from the character and distribution of the pelvic pain. 2. The exact nature of the disease should be determined in a given case as nearly as possible, and not the advisability or inadvisability of an operation alone. 3. Pain in the pelvic viscera is governed by the same laws which apply to the causation of pain in the other abdominal viscera. 4. Neurasthenia may develop from neglected pelvic disease, with diffusion of pain and characteristic symptoms in other parts of the body. 5. Persistent neurasthenia following pelvic operations is frequently responsible for the continuance of unpleasant symptoms. 6. Hysteria with pelvic symptoms has the same characteristics as when associated with other diseases. 7. The removal of normal ovaries for pelvic pain is now regarded as unjustifiable. 8. Fibrocystic ovaries are often found in women who are in perfect health. Operation on such organs should be conservative. 9. Pain is the resultant of a lesion, and in order to understand its significance both these factors must be carefully studied.—*Amer. Jour. Obstetrics*, April, 1908.

PHYSICAL SIGNS IN CANCER OF THE STOMACH.—McPhedran (*Buffalo Medical Journal*, April, 1908) gives the following practical points in the physical examination of patients suspected of gastric cancer:

In making an examination due care should be taken to have the patient facing a good light, lying evenly on the back, with the chest and abdomen well exposed. Failure in discovering a tumor, even by good physicians, is not rarely due to want of observance of these obvious precautions. At this early stage there are rarely signs of a tumor, as one has not yet formed, but there may be signs of spasm of the walls of the stomach, as described by Cruveilhier over 50 years ago, and to which Boas has drawn attention anew under the designation of "gastric rigidity." When present it is at first so slight as only to be felt by the hand placed below the left costal margin, as a faint contraction of the fundus, and lasting only a moment. Later, as the contractions become more marked and rigid, they can not only be felt, but the abdominal wall, if thin, can be seen to

as a slight mound, which after a brief period disappears. When so marked as this it gives the patient a sensation of spasm and may cause an audible gurgling sound as it disappears. For obvious reasons rigidity does not occur when the stomach is empty, and is most marked if it be moderately full. It recurs at variable intervals and may usually be excited by friction, especially by the cold hand. Gastric rigidity is a sign of much diagnostic value, as it indicates forcible contraction of the fundus excited by obstruction at the pylorus. It may begin fairly early, after the obstruction has developed, probably while the disease is still localized in most cases, and in time to permit of successful resection of the pylorus, infection of the lymphatic glands not having yet occurred.

The stomach should be inflated in order to determine its size, position and relation to other organs, and to a tumor if such exists. The colon could also be inflated, especially if there is a tumor of uncertain attachments. Inflation may enable us to determine the seat of the tumor, those near the pylorus before adhesion forms being movable, while in the lesser curvature they are relatively fixed. The supraclavicular glands are found enlarged in some cases, but rarely in the early stage.—*Med. Rev. of Reviews.*

POSTURAL TREATMENT OF BRONCHIECTASIS IN CHILDREN.—Ewart discusses this subject in the *Medical Press and Circular* and states that the indications are:

1. To empty the bronchus and to keep it empty; 2, to fill the lung with creosote, and keep it actively expanding. He refers to the methods of intratracheal injection, creosote and other inhalations, and internal medication, and proceeds to advocate mechanical methods. The method is divided into (a) intermittent, and (b) continuous, postural treatment. The bronchial treatment is mainly postural, the intermittent "ultra-prone" posture, "inversion," being the most rapid and effectual for the evacuation of accumulations in the cavities of phthisis or of bronchiectasis. The patient turns over the side of the bed or of a table, placing the hands on the ground, so that the long axis of the thorax approaches the vertical. A few coughs will rapidly clear away the greater part of the collection. Children bear inversion remarkably well, and in small children and infants something near actual inversion may safely be resorted to. The continuous treatment has three practical instalments. The nocturnal postural treatment; the diurnal postural treatment; the respiratory treatment by means of the elastic belt and of the "exerciser." For carrying out the nocturnal treatment he describes the extemporizing of a "bronchiectasis exerciser" from an ordinary one. For the diurnal treatment an "all fours exerciser" is described and its use illustrated. Various other devices, all tending toward stopping the bronchial irritation and hypersecretion by bronchial drainage and pulmonary ventilation, and to reclaiming for active pulmonary expansion the thoracic space usurped by the dilatations and the fibrous tissue are described. The results attained in children are excellent.

AORTIC REGURGITATION.—From a study of five cases of this condition, Greene concludes: (a) That temporary aortic leakage is not so uncommon.

mon as is usually held by our clinicians.. (b) That more attention should be paid to the atypical forms which a murmur may assume. (c) That the capillary pulse is the most constant sign, and that its frequency in other lesions is probably greatly over-estimated by reason of the fact that an existing aortic regurgitation may be readily overlooked. (d) That a capillary pulse in neurasthenic patients is frequently attributed to the neurasthenia rather than to its true cause. (e) That a modification or absence of the second carotid tone is a most valuable and constant sign in cases unassociated with marked arteriosclerosis. (f) That no examination having reference to the integrity of the heart is complete unless the carotid tones and capillary pulse are carefully investigated.—*Archives of Diagnosis*, April, 1908.

How to LIVE.—The secret of health and long life lies in the observance of simple things:

1. Don't worry.
2. Don't hurry. Too swift arrives as tardy as too slow.
3. Simplify everything you do.
4. Don't overeat; don't starve. "Let your moderation be known to all men."
5. Court the fresh air day and night.
6. Sleep and rest abundantly. Sleep is nature's sweet restorer.
7. Spend less nervous energy each day than you make.
8. Be cheerful. "A light heart lives long."
9. Work like a man should, but don't be worked to death.
10. Avoid passion and too great excitement. A moment's anger be fatal.
11. Associate with morally and physically healthy people. Heal th as well as disease is contagious.
12. Don't carry the world on your shoulders, much less the uni^{verse}. Trust that to the Eternal, for "He doeth all things well."
13. Never despair, for lost hope presages moral and physical death.—*Dietetic and Hygienic Gazette*.

THE TREATMENT OF ITCHING PILES.—The following will prove ^{effiq} cious in relieving the itching:

Cocaine hydrochl	gr. 8
Menthol	gr. 10
Petrolatum	oz. 1

Apply externally and push up a small quantity into the rectum, ^{after} bathing the parts with cold water.

PANCREATITIS RESULTING FROM GALL STONE DISEASE.—W. J. May^o, *New York State Journal of Medicine*, April, 1908. In a series of ^{2,200} operations upon the gall bladder, an associated affection of the pancreas was found in 61-10 per cent. of the cases. In 268 operations upon the common and hepatic ducts, the pancreas showed disease in 18.6 per cent, against about 4½ per cent. where the gall bladder alone was involved. The cause of pancreatitis consequent upon gall stone disease is due ^{to} the close anatomical relations of the excretory ducts of the gall bladder.

and the pancreas. Therefore a stone lodging in the common duct or an infection in any section of the bile tract also exposes the duct of Wirsung to infection; and if a stone is impacted in papilla of Vater, the bile may force its way into the duct of the pancreas and set up a chemical pancreatitis. Pancreatitis may be either acute, subacute or chronic. The acute cases present themselves in the forms of hemorrhagic pancreatitis with or without fat necrosis. If the process is less acute the so-called "pancreatitis apoplexy" results. Of three acute cases of acute pancreatitis one died. Of subacute cases all recovered. The only points of note to be followed in the operation are two: 1. If gall stones are present they should be removed and the gall bladder drained. 2. If fluid is present in the peritoneal cavity, temporary drainage should be established. Chronic pancreatitis may be interlobular or interacinar. Both produce practically the same symptoms, except that in the interacinar form diabetes may result, due to destruction of the islands of Langerhans. The symptoms of chronic pancreatitis are jaundice, emaciation, pigmentation of the skin, and pasty and fatty stools; occasionally the hard, firm pancreas may be felt in the epigastrium. An antecedent history of gall stones can usually be obtained. The author's limited experience with the Cammidge reaction has been favorable. The treatment of chronic pancreatitis consists in drainage of the biliary tract. If stones are present in the common or hepatic duct, these are removed, and the common duct is rendered patent. If no stones are present, cholecyst-enterostomy or cholecystostomy should be done, preferably the former.—*Amer. Jour. of Surgery.*

AMYL NITRITE TO CONTROL PULMONARY HEMORRHAGE.—Sweet records excellent results following the use of amyl nitrite in cases of hemorrhage following bullet wounds of the lungs. Use is made of the 5-minim pearls. The administration is the same as in cases of asthma or angina pectoris. When it is desired to maintain the effect, Sweet administers nitroglycerin and sodium nitrite in small and oft-repeated doses.—*The Military Surgeon.*

BORIC ACID POULTICE.—Mix a tablespoonful of cold water starch and a teaspoonful of boric acid with a little water; add the mixture to a pint of boiling water and stir the whole until a uniform mucilaginous mass is formed. When cold spread the jelly thickly on cotton and cover it with a piece of muslin. Then apply to the part. A good plan is to put on the poultice at bedtime and to remove it in the morning. It is useful in acute and sub-acute skin affections to cleanse and soothe prior to the applications of ointments, etc.—*The Hospital.*

CATHARTICS IN INTESTINAL INTOXICATION IN INFANTS.—Kimball (*Archives of Pediatrics*, June, 1908) lays great stress on thorough cleansing of the bowel in intestinal intoxication of infancy. Regarding the use of cathartics he says:

In all intestinal infections cathartics should be given in large doses and at once—all traditions of dosage must be ignored. I could cite many cases like this, and several times I know I have saved life by a bold dose at a critical moment. Even vomiting is not a contraindication. Castor oil is so adhesive that it cannot all be vomited and, if repeated boldly, enough will soon be retained to evacuate the intestine. Calomel is so heavy and

insoluble that it is not easily vomited and, if persisted in, will usually act. In my experience of twenty-seven years I have never seen any harmful result from either drug.

Calomel is a most useful drug, and I always use it in cases of diarrhea where the bowel is already active. I have heard a well known pediatricist say that it is so harmless that it might be given by the teaspoonful. In my opinion, however, it hasn't sufficient initiative to be always available, and to depend upon it in serious cases is only losing valuable time. It should always be given in 1-4 grain doses, repeated according to the demands of the case. Doses of 1-10 of a grain, in my opinion, are useless. Even for infants a few days old 1-8 or 1-6 of a grain is a better dose. If not effective in two or three hours it should be followed at once by a saline or castor oil. I believe that there would be few serious cases of dysentery if the initial infection were promptly and vigorously removed.

Next to castor oil I like the senna preparations. Salts in solution are preferred by many writers, and are considerably used for this purpose, but it is necessary to use a large quantity of water to dissolve them and the taste is also disagreeable and apt to induce vomiting. The sulphates of soda and magnesia are generally used for this purpose. Sulphate of soda is sparingly soluble in water; the solution in use at the Babies' Hospital contains 15 grains to 2 drams. If any stronger than this it will crystalize. They are very useful in dysentery given in small repeated doses. Milk of magnesia is popular; it is antacid and prompt, especially if given with orange or lemon juice, but is mild and not to be relied on in serious conditions. Cascara, in aromatic fluid extract, is good but slow, and liquorice powder is one of the best all-round laxatives in doses of a few grains to $\frac{1}{2}$ dram, but it is slow. Rhubarb, in syrup or tincture, is useful in mild diarrhea, and has a secondary stringent effect, but, in all serious cases where promptness and certainty of action are indispensable, castor oil is the best, either pure or in the form of laxol. The latter preparation has no taste of castor oil, as it has been disguised by peppermint, but it is very sweet and not so good for continued use. Pure castor oil may be given every few hours for days and it is harmless. I have never seen any ill effects from its use.

THE CLINICAL SIGNIFICANCE OF THE OPSONIC INDEX.—By Dr. Jurgens (*Berliner klinische Woch.*, No. 13, 1908). This article describes and criticizes Wright's method of determining the opsonic index. Phagocytosis, the author states, is not entirely dependent upon the action of opsonin-containing serum or bacteria, but may also take place when opsonin is completely absent. This latter action is termed by Wright "spontaneous phagocytosis;" it is relatively slow, not of high intensity, and can, according to Wright, be abolished by using as the liquid medium, a 15 per cent. saline solution.

In the actual work of determining the opsonic index it is impossible to exclude the influence of spontaneous phagocytosis. If, for example, we find that in one investigation 100 leucocytes contain 200 bacteria, in another 220 bacteria, and in the control 210, the opsonic index would be put down as 0.95 in the first case and 1.05 in the second. We attribute here the entire phagocytosis to the action of opsonin, whereas, as a matter of fact, the 200 or 220 or 210 bacteria have only partly made their way into

the leucocytes by opsonin action; a portion of them has entered spontaneously. But this spontaneous phagocytosis does not necessarily occur in precisely equal degrees, and hence there is involved a source of error which cannot be estimated.

Moreover, the bacteria, as well as the leucocytes, give rise to difficulties in the practical work of opsonin determinations. In the first place, we must take account of the fact that even the best emulsion of tubercle bacilli or cocci has a tendency to the formation of clumps; but the count varies if (1) the bacteria which come into contact with the leucocytes are all single, or if (2) the bacteria also occur in groups. As a typical case in point, Jurgens reproduces a photomicrograph showing three leucocytes; one of them contains five bacilli, another two, and the third none. The five bacilli lie close together; they were probably close together in the original emulsion, and presumably they all entered the leucocyte in a group. Ought this leucocyte to be excluded from the count? If so, and if we lay down the rule that every leucocyte containing a group of bacilli must be disregarded as being suspicious, a further difficulty arises. Bacilli, not forming clumps, are often more numerous in some leucocytes than in others. Are these more richly-laden leucocytes to be excluded? If so, at what point and on what grounds are we to draw the line between what ought and what ought not to be included in the count? The same difficulty is, he says, felt still more acutely in dealing with cocci.

A table is given showing the details of an actual count of 100 leucocytes. The majority of these cells contained each either two or three cocci; but one contained 21 and another 29. These two, it may be said, ought obviously to be excluded. But what should be done with several others, each of which contained 5, 6, 7, 8, 9, 10, or 11 cocci? Here, again, it seems impossible to lay down an objective rule for determining what is and what is not admissible. A further difficulty in the accurate counting of cocci arises from the fact that the cultures used generally contain many organisms which are commencing to divide. These examples are quoted by the author as illustrating the "subjectivity" of the technique involved in opsonic work.

Jurgens also criticizes the alleged therapeutic value of vaccine treatment guided by determinations of the opsonic index. If we take a general review of Wright's clinical material, the treatment, in many instances, unquestionably gives us a favorable impression, and in some cases this favorable result is remarkably striking; but the large majority of his cases tend to cancel this impression. Precisely where, according to the character of the opsonic curve, a successful result should be anticipated, amelioration often fails to take place; and in other cases the course of the disease takes a favorable turn, although vaccine therapy has not affected the opsonic index precisely as desired. Instances also arise in which, after the onset of an improvement coincident with the commencement of vaccine therapy, unmistakable changes for the worse set in later, showing that the original favorable impression was quite misleading.

According to the opsonin theory, vaccine treatment produces favorable results when it causes a rise in the opsonic curve. Jurgens concedes that when we take a large number of cases many examples can be selected which support this theory, but he does not regard these results as proving general law. "When, however, we compare, in each individual case, the

curve influenced by vaccine therapy with the course of the disease, we see at once that curves are not always produced which correspond to Wright's theory. Many cases conform to it, but many others do not."—*The Post-Graduate*.

THE DIAGNOSIS OF PHTHISIS.—Samuel Gee (*Clinical Aphorisms*). 1. Before the appearance of physical signs it is the presence of some or all of the following facts which leads to a diagnosis: Hæmoptysis, cough, loss of flesh and color, slight rise of temperature and hereditary liability to the disease; but, above all, the detection of tubercle bacilli in the sputum.

2. The absence of physical signs of disease in some cases of slowly progressive pulmonary consumption, ending in death, is more remarkable.

3. Tubercular phthisis going on to the formation of cavities is not extremely uncommon even in infants under a year old.

4. Therapeutics must begin before physical signs have developed, for if you wait for physical signs you wait too long.

5. Always say these things to a patient whom you suspect to be phthisical:

(a) Get yourself weighed by the same machine each time to see if you are losing weight.

(b) Use a thermometer two or three times each evening to see if there is any fever.

(c) Save your sputa to be tested for bacilli.

6. If besides auscultation and percussion these three points give negative results you may infer there is no phthisis.

INGESTION OF FLUID IN NEPHRITIS.—Strauss (*Berliner klin. Woch.*) announces that later research by himself and others has confirmed the correctness of his views in regard to the necessity of allowing plenty of fluids in most cases of nephritis to wash out the accumulating poisons and indirectly to relieve the heart. In four patients with very high blood pressure only slight increase in the blood pressure followed ingestion of a pint of water and in none of the others was there any increase. He makes a sharp distinction between dropsy of cardiac and that of nephritic origin, but states that in both forms the patients may benefit from copious intake of water. He regards polyuria as an effort of nature to wash out effete matters, and it requires an adequate intake of fluid. Experience has shown that the elimination of nitrogenized substances and phosphates declines in nephritis if the intake of water is limited. The conditions in diabetes insipidus are similar to those in chronic interstitial nephritis in some respects; the specific gravity of the urine increases under deprivation of water, which does not occur in health. Rabbits given plenty of water, survived longer than the controls without water in experimental nephritis from uranium poisoning. He is convinced that the hypertrophy of the heart, like the polyuria, is for purposes of compensation. Dropsy of nephrogenic origin is likewise a compensating process, to dilute the retained effete matters. Uremia is the danger, and we have comparatively few means of combating it; it is different with dropsy. We can act on the dropsy with diuretics or we can tap the fluid and thus give outlet to retained toxic elements as well as to the effusion, while we are compara-

completely powerless with respect to uremia except as we allow fluids to be ingested to ward it off or reduce it. Consequently he does not regard dropsy as a contraindication for free ingestion of fluid when uremia threatens. He never allows much water at a time, but orders numerous small amounts to be drunk systematically through the day or given by instillation in the rectum, a drop at a time. The contradictory findings of various authors are due to the differences in the individual cases as so many complex elements enter into the matter. Salt, of course, he asserts, should be restricted in all cases of dropsy.—*Jour. Amer. Med. Assoc.*

THE THERAPEUTIC VALUE OF OIL AND BONE MARROW IN DISEASES OF THE STOMACH.—Walko (*Wiener Klin. Wchschrft.*, No. 47, 1907). The author's observations concerning the mode of action of the fats, especially the oils, were made upon the majority of those gastric affections which are associated with the increased production of hydrochloric acid, including hyperacidity, hypersecretion, the alimentary and nervous type of either; gastric ulcer, erosions of the gastric mucosa, acidity, hyperæsthesia; also pyloric stenosis of a benign and cancerous character. In the hyperacidity cases bone marrow (freshly boiled) was found to have a well-marked inhibitory influence upon the secretion of acid. It is fully assimilated by the bowel. In gastric ulcer the author prescribes during the first days, repeatedly, a tablespoonful of a mixture of 100 g. olive oil, 5 g. bismuth and 3 g. magnesia usta. Cold milk is not permitted until the third day. Rest in bed is insisted upon in all these cases.—*Med. Rev. of Reviews.*

OPHTHALMIC SUGGESTIONS.—Test the vision carefully in every case of ocular injury, even if it is apparently nothing but a "black eye."

Recurrent attacks of inflamed lids, conjunctivitis, or corneal ulcer *in the eye*, suggest an infected lacrimal sac. Pressure over the inner canthus will generally cause muco-pus to present in the puncta.

When a gray or blue eye turns brown and loses sight, after an injury, one may be almost sure of a chip of steel or iron in the globe, that is slow rusting (siderosis).

Avoid bichlorid solutions in eye work as much as possible. After cocaine has been used they may cause a permanent opacity of the cornea.

A large dose of antipyrin or quinine will clear up a frontal headache due to acute catarrh of an accessory sinus by its astringent action on mucous membrane and consequent improvement of drainage.

A large pupil in an aged patient is a danger signal, suggesting glaucoma with insidious onset.

After using a mydriatic in an adult instil pilocarpin 1 per cent. and keep the patient under observation until the pupil contracts.

Yellow salve soon turns brown on exposure to light if made with lard as a base. Cold cream or lanolin makes a good base. Keep in a porcelain jar with a screw top.

The most stubborn and inflamed iris will yield and the pupil dilate if leech be applied just back of the lid-fissure and a small crystal of atropin be placed in the conjunctival sac. Avoid systemic poisoning by pressure over the inner canthus with the tip of the finger, occluding the tear-ducts and preventing the atropin-laden tears from running down the nose and being swallowed.

. After using cocaine solution on the eye be sure to keep it well irrigated, or protected by a bland ointment, or bandaged, to prevent drying and subsequent erosion.

After iridectomy for glaucoma the pupil of the sound eye should be kept contracted by pilocarpin for at least a week, but not bandaged, as it should be open to frequent inspection.

In prescribing eye-drops order a dropper to be placed in the bottle in place of a cork as a stopper. It will always be at hand and always clean, and the solution will not be contaminated.

A hypodermic injection of morphine, gr. 1-6, about a half hour before a major eye operation, such as cataract or iridectomy, will keep the patient quiet and make the extraction calm and free from pain. There is no danger of sudden motion of the head, and the technic is more exact and rapid.

Clipping the lashes close before ophthalmic operations renders the first dressing easy, as the lids are not glued together, there is no retention of secretion, and, accordingly, there is less danger of secondary infection.

In looking for a foreign body on the surface of the eye do not forget to examine the tear-points with care. An incarcerated lash or cut end of hair may be the cause of the trouble.

Wolfe grafts for the lids or for an artificial socket must be made very large to allow for shrinkage. Allow an extra half inch for each inch in length and width of the defect to be covered.

An old Beer's knife which has been ground so often that it is of no use for corneal incisions is excellent for opening styas or chalazia, and a small straight keratome, on account of its double edge, is far better than any scalpel for splitting the lid margin in entropion and trichiasis operations.—*Amer. Jour. of Surgery.*

PROGRESS IN GYNAECOLOGY.—Dr. H. J. Boldt, of New York (*New York Medical Journal*, March 21, 1908) says in part that our knowledge of chorio-epithelioma may be classed among the late achievements in gynaecology. The first description of this malignant disease was given by the late Martin Saenger. Since he called the attention of the profession to this occasional transformation of conception products structures many exhaustive and valuable articles on this comparatively new disease have appeared, and we have learned to recognize it sufficiently early to save many lives my immediate surgical intervention.

Very marked progress has been achieved in the treatment of purulent peritonitis. It has been proved by those who have tried the more modern method of extensive non-intervention that the rate of mortality is much lower. After the primary cause of the peritonitis has been removed no attempt should be made to rid the abdominal cavity of the purulent secretion by flushing and sponging, because to remove it all is impossible and the time consumed in flushing and sponging is too long and the traumatism too great. One should content himself with placing a drain in the cul-de-sac of Douglas, without any flushing or sponging. Rapid work is essential. When the patient is put to bed she should be placed in a semi-sitting position, the position suggested by the late Dr. George R. Fowler.

From that time on continuous instillation of saline solution should be

used, a method advocated by Dr. J. B. Murphy. It is certainly marvelous what a large quantity of fluid is absorbed. He has found that the best technique consists in taking an ice-water cooler of two or three gallons capacity, filled with hot saline solution (0.9 per cent.) This is kept at a temperature of about 110° F. by adding more very hot solution as needed. The quantity so added should be noted, so that we may know how much the patient absorbs. The container is placed alongside the bed and the rubber tube, with a small-sized rectal point, is attached. The flow is regulated by the faucet, and should not be more rapid than a quick dropping. The nozzle is inserted into the rectum, and the instillation is continued steadily day and night. In one of my cases 14 quarts were absorbed in 24 hours.

We have also learned by experience that in instances of cystocele associated with descent of the anterior vaginal wall a simple operation on the vaginal mucosa, such as some form of anterior colporrhaphy, does not suffice to cure a patient of the cystocele, but that it is necessary to separate the bladder from its cervical attachment and displace it upward, and then attach the vagina to that part of the cervix to which the bladder had been previously attached.

It would take more time than that allotted on this occasion were he to consider also the strictly scientific progress made in gynecology and to consider in detail *all* of the clinical advances. He, therefore, limited himself to those achievements which he considered most important and bears strictly on gynecology.—*Med. Rev. of Reviews.*

HIGHER ENTRANCE REQUIREMENTS AT THREE MORE COLLEGES.—Dr. Samuel W. Lambert, dean of the College of Physicians and Surgeons, the Medical Department of Columbia University, informs us that the faculty has raised the entrance requirements, beginning September, 1909, to two full years of study in an approved college or scientific school, which course must have included instruction in physics, chemistry and biology.

Dr. J. N. Simpson, dean of the College of Medicine of West Virginia University, informs us that beginning with the session of 1909, in addition to 15 units of secondary work, one year of collegiate work, including courses in physics, chemistry, biology and modern languages, will be required for admission.

Dr. W. Henry Wilson, registrar, announces that on or before January 1, 1910, the Hahnemann Medical College of Chicago, will require for admission an additional year in physics, chemistry, biology and modern languages.

This makes 27 medical colleges which by 1910 will be requiring two or more years and 60 colleges which will be requiring one or more years of work in a liberal arts college for admission to the study of medicine.—*Journal American Medical Association.*

HOUSE FLIES may be destroyed, according to Q. N. O. in the J. A. M., by means of powdered buhach (the flower heads of *chrysanthemum aureum*) a pint of which is placed on a metal plate, lighted and allowed to smoulder. In a room 70x40x15 feet three pints of dead flies were swept up—and burned, to make sure. Four applications during the

fly season, with care regarding windows and door screens, kept the place free from flies during the season.

THE CHINESE GOVERNMENT, states the *Sun*, is very much in earnest in its efforts to suppress the opium evil. Its latest edict on the subject provides for an investigation of its extent and a full report on the steps that have been taken by provincial authorities to reduce the production and consumption of opium. There are excellent reasons why China is eager to demonstrate her good faith in this crusade and her ability to cope with the problem. Great Britain has agreed to reduce the opium export from India to China for three years by one-tenth of the average amount exported during the last five years, provided the import into China from Persia and other foreign countries is limited to the same degree. This average export has been 51,000 chests a year. Great Britain has further promised that at the end of the three years she will continue her reduction of Indian exports, provided that China shall give good proof that she is successfully reducing the internal production and consumption of opium in her own territory. The outsider, who views this matter from our distant perspective would wonder why Christian England which is so fond of sending out missionaries to preach justice and humanity does not at once stop her very pernicious exports of opium into China; why indeed she has ever permitted her people to introduce this substance, by which the Chinese people are so degraded. It evidently devolves upon China, however, to prove not only that she will fight the evil but also that she can do so effectively; the task is certainly stupendous and very embarrassing. The product of home grown opium is now about ten times the foreign importation. The government tax on the home product is annually about \$35,000,000; and to wipe out this source of revenue in the present condition of the Chinese exchequer is at least inconvenient. Furthermore, the difficulty of stopping the cultivation of the poppy will be immense, especially in the distant provinces where it is now a staple product. China certainly deserves the sympathetic support of all nations in her efforts to destroy the deep rooted evil which is sapping her national strength and which was in great measure originally foisted upon her by sanctimonious England. If she succeeds in her present plans opium will cease to be grown within her borders by 1917.—*Medical Times*.

NEW MEDICAL PRACTICE LAW IN ALABAMA.—Dr. W. H. Sanders, chairman State Board of Examiners, has issued the following circular of information:

A new law regulating the practice of medicine in this State is now in operation.

The branches upon which applicants will be examined are: Anatomy, chemistry, physiology the ætiology, pathology and symptomatology of diseases, surgery, obstetrics and obstetrical operations, gynæcology, physical diagnosis, hygiene and medical jurisprudence, diseases of the eye, ear, nose and throat.

A diploma will not be required as a prerequisite for examination.

Formal application for examination will be made after the applicant arrives.

All persons who desire to practice medicine in this State must be ex-

mined, irrespective of any certificates of qualification obtained elsewhere they may hold.

Reciprocity betwixt this State and any other State has not been established.

At least four days will be required to complete the examination.

The next examination will begin on Tuesday, the 16th of June, prox., at 9 o'clock A. M., in the Capitol at Montgomery. Persons contemplating presenting themselves for examination at that time will please give notice of such intention.

The fee for examination will be \$10, payable on making application after arrival.

All applications, whether regulars or irregulars, must undergo the same examination. Materia medica and the administration of drugs in diseases are omitted from the examination.

Temporary license cannot be given.

Samples of questions given in previous examinations will not be furnished.

ERYTHEMA INDURATUM.—Diagnosis Of. L. Weiss, in the *Jour. Am. Med. Assoc.*, diagnosticates this disease from erythema nodosum by the fact that the latter disease is of an acute character and has marked systemic disturbances. Its lesions appear more suddenly, are decidedly more painful, and are quite superficial in comparison. The lesions are brighter in color and show more inflammatory reaction. The lesions in erythema nodosum do not break down and disappear with the color gradations similar to those seen in contusions. The name dermatitis contusiformis having been given to this condition for this reason. Erythema induratum to the contrary is of a chronic type, may at times undergo ulceration, and does not have the constitutional disturbances to be seen in erythema nodosum. Gumma are never as numerous, they tend at one time or another to undergo changes, and readily clear up under specific treatment.

RALPH BERNSTEIN.

BROWN TAIL MOTH DERMATITIS.—Its manifestations. E. E. Tyzzer, in the *Journal of Medical Research*, states that the severest forms of this variety of dermatose usually occur during May and June, when the caterpillars reach their full development. Tyzzer describes two varieties of manifestations; one in which the nettling hairs of the caterpillar are crushed upon the skin and in that way rubbed in, producing within twenty minutes a decided dermatitis, associated with the presence of a wheal, about which there is much reddening, and which becomes white when stretched. Reaction to the hairs might often take longer, as much as eight hours having elapsed after inoculation. The lesions may become confluent, with thickening and the formation of vesicles and papules.

The other variety is that form, in which the nettling hairs have become distributed upon the underclothing and there becoming dry, they set up a dermatitis which is finely papular and urticarial in type. When not scratched these minute papules often show a tiny vesicle filled with a clear serum. Warm, moist weather seems to aggravate and favor the condition, for the skin becoming softer under this condition, favors the

penetration of the hairs. The lesions usually heal in from a week to ten days.

RALPH BERNSTEIN.

EPITHELIOMATA OF THE LOWER EYELIDS, REMOVED BY A MODIFICATION OF DIFFENBACK'S METHOD.—The prominent points which the author attempts to bring out in his treatise are: Early and complete removal by the knife. That all other forms of treatment are of much less importance than this. That no time should be lost in attempts at removal by plasters, caustics or X-ray treatments. The tumor is removed by incision through the skin from the outer and inner canthi downwards in a V shape to a point about three-fourths of an inch below the median line and prolonging the cut from the outer canthus toward the ala nasi, leaving a "nasal" flap. The dissections are made from below upwards and sufficiently deep to be certain that no diseased tissues are left in the wound. The next step in the operation is the removal of a three-cornered piece of skin at the outer canthus, the base of which extends horizontally from the canthus outward an inch or more, the skin being undermined or loosened from the outer portion of the wound half an inch or more.

The apex of the nasal flap is thus brought up to the lid margin and united at the outer canthus angle of the other flap by strong sutures, both flaps being attached to the conjunctiva, thus forming a new lid. There being an abundant blood supply in the flaps there is no delay in the healing process and no open wound to heal by granulation, there is but slight deformity of the face, the operation apparently being an improvement over Diffenback's sliding flap in these respects.—Dr. E. W. Beebe, *The Homœopath. Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

CATARACT. POSSIBLE PREVENTION; PROBABLE OPERATION—WHICH?—Senile cataract, if not interfered with, usually becomes "total" or "ripe" in a varying length of time. There is a loss of vision ranging from dimness to blindness during the ripening process. In a large proportion of cases vision following operation is no better than when the patient first applies for relief. In a smaller proportion vision is better, but in either case the result is not predeterminable. Cataract, after destruction of the lens substance has begun, is incurable, but the process, in a large majority of cases, may be arrested, and that portion of the lens in which destruction of the cell elements has not taken place, may be partially cleared. Question: Is it not better to stop the cataractous process with fair vision than to allow the case to proceed to operation through the stage of blindness and run the risk of poorer vision than attains when the case is first seen?—Dr. Leigh Y. Baker, *The Homœopath. Eye, Ear and Th. Jour.*

TUBERCULOSIS AN UNRECOGNIZED CAUSE OF SCLERITIS AND SCLEROSING KERATITIS.—There seems to have been in the past a decided tendency to ascribe those diseases where the etiology was obscure to rheumatism or syphilis, not because any direct evidence in support of this could be attained, but as both those conditions are common and their sequelæ varied they make an excellent scapegoat on which to hang our ignorance. As

an example, we find among the rarer diseases of the eye scleritis and sclerosing keratitis which, regarding the etiology, have been up to a recent date among the most obscure lesions in ophthalmology. The general consensus of opinion is that these are dependent upon the rheumatic diathesis. Such causes as syphilis, gout, vasomotor changes and anomalies of menstruation are mentioned; some cases have been reported in tubercular subjects, and were cured during the use of tuberculin, but that the scleritis in itself is a tubercular process has not been recognized, even in our latest books on ophthalmology.

I shall endeavor by the report of a case of my own, and a summary of the observations of others, to show that it is nearly always a tubercular process in the sclera, and that careful treatment with tuberculin promises to these cases ultimate recovery with good vision, which under previous methods of treatment, were not arrested until there was great impairment or even complete loss of sight.—Dr. Albert E. Cross, *The Homœopath. Eye, Ear and Th. Jour.*

SOME OVERLOOKED CONGENITAL LENS DEFECTS.—The embryonic development of the lens demonstrates the wonderful exactness and uniformity of nature's laws. The transition from a vesicle spot through embryonic formation vessels to the complete transparent lens illustrates the miraculous process as well as the beauty and utility of the evolution. Majority of lenses normal. Varying abnormalities must be recognized from slight inconspicuous spots to the total obscuration in conjunctal cataract. Personal observation teaches that lens defects may exist without the knowledge of the persons afflicted, until later in life when senile optical changes take place; and then the lens defects may be apparent to the oculist, who may mistake and be led astray by the conditions in reference to diagnosis and prognosis.—Dr. James A. Campbell, *The Homœopath. Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

HYDROTHERAPY IN CHILDHOOD.—Friedrich Grosse contributes to the literature upon hydrotherapy in the treatment of diseases of children, in a paper read before the Section of Pediatrics of the New York Academy of Medicine, February 13, 1908. He dwells upon the all important fact that children do not react to cold water as do adults and begins by reviewing the work of Hecht in experimenting with a series of cases of measles.

Hecht bathed systematically children with measles in half baths of 58° for twelve minutes, with and without friction, inserting into the rectum a long, curved thermometer which allowed the reading of the temperature outside of the anus every two minutes during the application of the bath. He found:

1. The reduction of temperature is the greater the younger the child. The average during the first year is 6.3°, during the second year 5.9°, third and fourth year 3.8°. After this time it corresponds to that of adults.
2. The poorer the development and nutrition the greater the reduction of temperature.
3. Age is of less importance than development and nutrition.
4. The reduction of the temperature is less dependent upon the height of the fever and amplitude of its daily variations than in adults.

5. Friction during the bath and the addition of mustard influence the effect less than in adults.

6. After the procedure the reduction is nearly the same as during the bath contrary to the figures in adults in whom it is merely a few tenths of a degree.

7. Shivering does not occur so remarkably as in adults, but crying may replace these involuntary clonusus.

8. The pulse rate and respirations are lowered more than in adults.

9. The reduction of temperature is the greater the higher the vaso-motor excitability.

Grosse draws the following conclusions from these observations:

It is wrong to apply extremely low temperatures in the case of children; the bath should be from ten to fifteen degrees higher than for an adult. He warns against attempts to "harden" children by means of cold baths and wearing insufficient clothing. Even for healthy children he does not approve of a bath lower than 80°.

The hot full bath is a favorite procedure with the essayist. "It is given either so that the baby is slowly immersed for three minutes without rubbing or the water is first 103 and after one minute hot water is added to bring it up to 107. During the first year three minutes are sufficient; later on four to six minutes should not be exceeded. This bath is highly advisable in impending collapse, to promote the appearance of rash in the exanthemata and in cerebro-spinal meningitis, here repeated many times during the day. This bath is a wonderful stimulant. Protracted baths, less hot are positively less stimulating and may prove fatal. —*Archives of Pediatrics*, May, 1908.

C. SIGMUND RAUE, M. D.

THE TREATMENT OF RHEUMATISM IN CHILDREN.—Dr. J. P. Crozer Griffith states that owing to the great tendency to recurrence of the disease, prophylaxis was the chief desideratum. This was especially true in rheumatically disposed children. Overheating, exposure and overfatigue should be guarded against. Underclothes should be warm, but not warm enough to produce perspiration on the slightest exercise. A child who grew warm from violent exercise out of doors should not be allowed afterward to stand around unprotected. Change of climate was of great value for those disposed to rheumatism, especially in the spring and winter. Warm, dry, equable climates were to be preferred. High altitudes, although dry, were objectionable. Tonsillitis should be treated promptly, as the germs of rheumatism often entered in this way.

In the treatment of the attack, external treatment was first considered. Absolute rest was imperative, especially in view of the difficulty of recognizing the beginning of cardiac involvement. Inflamed joints should be wrapped in cotton and often immobilized. Warm water should replace cold for ablution. Of applications recommended, ichthyol and oil of gaultheria had many supporters and were often serviceable. Gentle compression of the joints was sometimes useful. The Bier method was worthy of trial. Blistering over the heart, if this organ becomes involved, was of questionable benefit and not applicable to young children.

For internal treatment of the many drugs recommended, those still especially in vogue were salicylic acid and the alkalies. Although there was

to prove that the salicylates certainly cure the disease, yet they undoubtedly relieved the pain and we had as yet nothing to be preferred to them. Salipyrin, salophen and aspirin were often useful, but generally could not replace the ordinary salicylates. Salicylic acid preparations did not seem to have any influence in preventing cardiac involvement. Alkalies in large amounts should be administered when the urine was decidedly acid. Evidence had been advanced to the effect that they prevented the development of cardiac complications. A specific serum treatment had been tried by several observers, but the results were not convincing.

Chronic rheumatism was particularly resistant to treatment, and was usually not benefitted by the salicylates or alkalies. Hydrotherapeutic measures, particularly sojourns at hot springs, were useful in this form. Cod-liver oil, arsenic and iodid of iron internally were often of benefit. Dry heat was frequently serviceable.

The relationship of muscular rheumatism to other forms of rheumatism was uncertain. It was frequently seen in individuals who were disposed to rheumatic arthritis. The treatment indicated for the latter condition was of service in the former and, in addition, such measures as counter-irritation, heat, electricity and massage might be valuable.—*Archiv of Pediatrics*, June, 1908.

LUMBAR PUNCTURE IN THE MENINGEAL FORMS OF ENTERIC FEVER IN CHILDREN.—This is the title of an important paper in the *Gazette Hebdomadaire des Sciences Medicales des Bordeaux* of January 26. In children enteric fever is often complicated by meningeal symptoms. In some cases these are slight and fugitive and of only secondary importance; in others they are more marked and persistent and occupy the first place among the clinical manifestations. For a long time writers discussed these meningeal symptoms and insisted on the variability of the prognosis according as there existed true meningitis or meningeal symptoms without an anatomical substratum (meningism). The introduction of lumbar puncture has given a new interest to the question.

From the clinical standpoint four types of meningeal manifestations in enteric fever in children may be distinguished. In the first, toward the end of the second week appear intense headache, repeated vomiting, and constipation (which may replace the pre-existing diarrhea). Cutaneous hyperæsthesia, irregularity of pulse and respiration, various vaso-motor troubles, and retraction of the head follow. Ocular symptoms (inequality of pupils, strabismus, and ptosis), are rarer and of more serious prognosis. After some days these symptoms may disappear, but sometimes they terminate in death.

In the second type the complete "tableau" of acute cerebro-spinal meningitis is presented. In addition to the symptoms described, Kernig's sign appears and rigidity of the neck and spine, as marked as in acute cerebro-spinal meningitis, follows. The rigidity may extend to the limbs, and the hands and feet may assume the attitude of tetanus. This is one of the most frequent types. The third type is rarer. The attack presents from the first the complete "tableau" of tuberculous meningitis, and erroneous diagnosis is easy. The fourth type is peculiar to infants. During an attack of enteric fever convulsions appear and lead to a rapidly fatal termination. Lumbar puncture has thrown a new light on the pathogenesis

of these phenomena. It may yield (1) pus in which may be found the typhoid bacillus in pure culture, other microbes, such as staphylococci, or a mixture of the typhoid bacillus and other microbes; (2) a turbid or transparent liquid in which centrifugalisation shows microbes—the typhoid bacillus or others; (3) a liquid which, though quite clear, contains abnormal cellular elements, usually abundant lymphocytes; and (4) a liquid of normal composition but flowing out in a jet, indicating abnormally high tension.

In the first two cases the pathogenesis of the meningeal symptoms is manifest; the meninges are infected. In the third case it is logical to suppose that the meninges are irritated by microbial toxins which give to the cerebro-spinal fluid its cytological characters. In the fourth case also the hypersecretion of cerebro-spinal fluid is probably due to the same cause. M. Roger has shown the frequency of serous exudations under the action of various toxins. These facts also explain why lumbar puncture can be useful in the meningeal forms of enteric fever. Concetti, Netter, and many others have shown that repeated lumbar puncture is the best treatment of bacterial meningitis. The operation is therefore indicated in cases of enteric fever if the cerebro-spinal fluid contains microbes. Each puncture removes some of the microbes and they are reproduced with difficulty as the cerebro-spinal fluid is a bad culture medium. They therefore, soon disappear. If, on the other hand, the meningitis is simply toxic, the removal of a certain quantity of fluid charged with toxins cannot fail to have a favorable action. In the case of abnormally high tension puncture diminishes the pressure on the nervous centres and removes the resulting symptoms.

The following is one of eight cases showing the value of lumbar puncture related by Dr. Rocaz and Dr. Carles. A boy, aged eight years, had a severe attack of enteric fever characterized by profuse diarrhea, a temperature of 103.6° F., rose spots, and so on. On the eighteenth day he complained much of headache, cerebral vomiting occurred, and the diarrhea was replaced by constipation. The head was retracted, the head was rigid, and Kernig's sign was present. Lumbar puncture yielded 12 cubic centimetres of clear fluid under high pressure. Cytological examination showed that this was of normal composition. All the symptoms of meningitis had disappeared on the day following and uninterrupted recovery followed."—*New York State Jour. of Med.*

THE ROLE OF THE GONOCOCCUS IN DISEASE.—Taylor closes his comprehensive article on this subject with the following summary: The gonococcus attacks the human urethra and there gives rise to both a catarrhal and hyperplastic inflammation from which may follow chronic urethritis and a tendency to stricture. By contiguity of tissue it invades the testes and their appendages and thus threatens sterility in men. Limited in its effects as a rule to the subepithelial connective tissue layer it in some cases by further invasion gains a foothold in the venous and lymphatic radicles of the male, and the female genitalia and produces local and general disturbances. By this extension the whole organism may be more or less seriously attacked and local disorder, much suffering and disability may result. The gonococcus then becomes a true factor of septicæmia and arthritis and even mortal illness are to be feared. Arthritis and rheu-

matism are the most constant concomitants of gonorrhœal invasion and induce marked changes in the joints, the tendons, the bursæ, and the muscles. Generalized systemic infection is most commonly observed when in the extension (usually from the joints) the heart in part or in whole is attacked; then severe and perhaps mortal illness may be produced. In general the reaction is in proportion to the extent of the cardiac territory attacked and such cases may assume a malignant form. Such is the toxic power inherent in the blood serum that in very many cases, even when vital parts are attacked, the gonococcus is destroyed. By reason of its toxins or perhaps of the microbe itself more or less structural change is produced in the cerebro-spinal system which may be local or more or less generalized. Gonococcic invasion of the pleura is not uncommon and various forms of phlebitis may thus result. While it has been shown that the spleen may be attacked there has been no evidence of liver involvement described. A large range of cutaneous and mucous membrane lesions have their origin in the gonococcus. These are ulcers, abscesses, and follicular lesions, erythematous and keratotic exanthems. Bone lesions of mild and severe forms are more or less remotely dependent on the virulent potentialities of the gonococcus. The whole genito-urinary tract in the male may be involved by the gonococcus; the prostate, seminal vesicles, bladder, ureters, and kidney may be attacked. Certain extra-genital parts, such as the mouth, rectum, nares, umbilicus and eyes are frequently the seat of gonococcic inflammation. Infection of the female genito-urinary tract is very common. When the lower pudendal portions are involved there is less danger, but extension of the process to the uterus and parts above constitute menaces to health and life. The question as to whether an inhibitory serum may be produced to kill or jugulate the virulent microbe is as yet unsettled. In the vast majority of cases of gonorrhœa the gonococcus is at first the absolute causal agent. The few cases in which a condition resembling gonococcic urethritis is produced by other microbes constitute but a drop in the bucket. While the gonococcus may become latent and may hibernate in tissues, crypts, and follicles, it may at any time become potential. It also may lead to mixed infection and prepare the soil for other microbes which may run a severe course. The gonococcus thus shows itself capable of producing the most far-reaching infections to which the human race is liable.—*Amer. Jr. Obs.* Vol. 57, 1.

THEODORE J. GRAMM, M. D.

SCOPOLAMIN-MORPHIA NARCOSIS.—Holz (Würzburg) has carefully examined the action of this narcotic compound, and concludes: 1. Pure scopolamin-morphia narcosis should not be used because of its dangerous toxic action. 2. By means of a combination of the alkaloids with chloroform-ether inhalations we obtain a narcosis which is distinguished from the simple procedure by greater tolerance, absence of excitation, and of the initial syncope and by a considerable diminution in the amount of anæsthetic required. Besides this lessening of direct dangers the method avoids post-operative complications, vomiting, pneumonia, and is more pleasant for the patient. 3. The dose of morphia is to be restricted as far as possible; after the preliminary use of veronal a single injection of (about) 1-100 gr. scopolamin and 1-10 gr. morphia is sufficient. With

this dose objectionable symptoms did not appear. 4. The faint sleep of scopolamin-morphia facilitates the performance of surgical operations during local anæsthesia. 5. In delirium tremens the use of scopolamin-morphia is insufficient; in the treatment of traumatic tetanus it is a useful measure, which diminishes reflex action and modifies the severity of the convulsions and of the pains.—*Samml. klin. Vorträge*, No. 471.

THEODORE J. GRAMM, M. D.

THE SURGICAL TREATMENT OF DIFFUSE SUPPURATIVE PERITONITIS.—The salient points in this article by Krogus are that this disease requires surgical treatment; favorable results are only obtainable from early diagnosis and early operation. A positive diagnosis can already be made in most cases within a few hours after the beginning of the disease, from the severe abdominal pains, rigidity of the muscles and sensitiveness over the abdomen, elevation of temperature, hyper-leucocytosis, increased pulse, sickly appearance of the patient, the vomiting etc. In every case where a patient becomes sick with severe pains in the abdomen and has rigidity of the muscles and sensitiveness over the abdomen, besides other symptoms which suggest a beginning peritonitis, the physician first called is obligated to call a surgeon who should then assume the responsibility of the treatment of the case. The operative treatment should be primarily directed to finding the origin of the infection and to removing it, and removing also the septic exudate; for this purpose a large incision is required. With reference to the effectiveness of irrigation of the abdominal cavity for the purpose of disinfection, the views of surgeons vary. Positive evidence of the usefulness and necessity for irrigation have not been produced; while on the other hand it is to be feared that prolonged and profuse irrigation may act injuriously, since they prolong the operation, and in certain cases may spread the infection. Only in such cases the advantages of irrigation are undoubted where chemically irritating fluids, as acid stomach contents, or foreign particles are to be flushed out. The main remedy for combatting the peritoneal infection is drainage, whereby the infectious product is given constant exit. The large Miculicz tampons best serve this purpose. In women the abdominal cavity may also be effectively drained with a tube introduced through an opening in the posterior vaginal vault. Such drains are also valuable for removing exudates in the loin and in the subphrenic spaces. In the after treatment of diffuse suppurative peritonitis, we possess in intravenous salt water transfusions a reliable remedy to add fluids to the body and at the same time stimulate the activity of the heart. Even in cases where symptoms of collapse have appeared, we occasionally succeed in sustaining the powers of the patient until the peritonitis symptoms have subsided. If after the operation bowel obstruction with meteorism and vomiting set in, and if these symptoms do not diminish from the use of the usual treatment (enemata, lavage) we should not hesitate to relieve the distended bowel by making an intestinal fistula. The results of operation are generally favorable if the operation is performed early within 12 to 24 hours or at least 36 hours, since then patients mostly recover, at least in those cases arising from the appendix. After that time the results are much more unfavorable, but even after the late operation some patients may be saved by operation. In order to obtain a fixed theoretic foundation for the

treatment of peritonitis and at the same time to obtain new information, it is desirable that the bacteriology of peritonitis with especial reference to anærobic bacteria, should be made the subject of renewed and thorough investigation.—*Samml. klin. Vorträge*, Nos. 467-8.

THEODORE J. GRAMM, M. D.

THE EXPECTANT PLAN OF TREATING ECTOPIC PREGNANCY.—Stillwagon, *Amer. Jr. Obs.*, Vol. 57, 43. The opinion among abdominal surgeons is gradually gaining ground that it is possible to operate cases of ruptured tubal pregnancy too early. Stillwagon's (Pittsburg) article deals with this aspect of the subject. He cites a number of authorities who are agreed that such cases should be instantly operated, but he believes this teaching is based upon a fallacy and is exceedingly dangerous. He concedes that it seems contrary to surgical instinct to permit hemorrhage to be checked except by the classical method of ligation. He believes that delay in diagnosis has been the means of saving many lives. The physician finds the patient in a condition of collapse and shock. For one reason or another sufficient time usually elapses before admission to the hospital for reaction to have occurred; active bleeding is checked; the patient is in good or bad condition for operation according to the amount of anæmia present, and according to the chance of infection. He recites a number of cases in none of which was the diagnosis made before entering the hospital; every case gave a typical history of a sufficiently grave onset to have justified an enterprising physician in performing an immediate operation; after admission to the hospital each case was treated expectantly and resolved itself into a simple laparotomy. That fatal collapse from hemorrhage and shock following the rupture of a pregnant tube does sometimes occur is undoubtedly true, but do they actually bleed to death? The shock and collapse occur almost simultaneously with the rupture, before there is time for a great deal of hemorrhage and the symptoms are usually out of all proportion in gravity to the amount of blood lost. No one will deny that this is a most grewsome time to open the abdomen. It has been determined that about 75% of all cases of ectopic pregnancy terminate in tubal abortion. The product of conception is expelled from the fimbriated extremity of the tube; the bleeding is not usually great and the entire mass is quickly walled off by adhesions. There could certainly be no objection to delay in these cases. Of the other 25% a certain number rupture into the broad ligament, which is the safest of all terminations. The balance, probably not more than 20% rupture squarely into the peritoneal cavity. It is a much greater percentage than the present mortality rate. It is for the sake of these cases that immediate operation is advocated. But there is a growing skepticism to the belief that a fatal termination in this contingency is inevitable or even probable, or that the patient's greatest hope lies in immediate laparotomy. Ihn has published statistics as to the mortality when the expectant plan of treatment is employed, and gives Winckel's death rate as nil; that of Winter as nil; that of Thorn as 1%. Hunter Robb in a recent article reports twenty cases with one death. Stillwagon operated his cases in from one to four weeks after the symptoms of rupture, and in some exceptional cases a longer time elapsed.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

THE FOOD FADDIST.

I pity him, poor fellow!
He looks so very yellow,
He seems so very thin.
Some feed that has nutrition
Might put him in condition,
Put fat beneath his skin.

He fears a lurking peril
In everything not sterile.
He has his water boiled.
His food is disinfected
As soon as it's selected—
And consequently spoiled.

Potatoes, beets and squashes
With antiseptic washes
He never fails to treat.
He has a most surprising
Hobby of analyzing
Things that he means to eat.

It's all so unavailing,
His appetite is failing,
His health is sure to break,
And yet he has the gall to
Suppose he has a call to
Warn me against my state.

—*Chicago News.*

FEW PUBLIC BUILDINGS are ventilated. Especially in their courts judges complain constantly that they are either half suffocated or blown off the managerial bench. Purifying the vitiated air of crowded rooms by opening doors and windows causes an inrush of cold air which, especially in winter, is likely to endanger delicate constitutions, and it is

afterwards necessary to reheat the rooms to bring the temperature to the normal. Successful experiments have been made at the Royal Theatre in Stuttgart with a new apparatus designed to distribute ozone at fixed intervals throughout the buildings. The ozone is conducted by small tubes to all parts of the house, and turned on, regulated and turned off at will. The result has been excellent, states the *German Health Engineer*, the air being completely purified within a few minutes. The upkeep of the apparatus is said to be between one and two cents an hour.—*The Medical Times*.

THE TREATMENT OF SHOCK.—By T. Drysdale Buchanan, M. D. Authorities would seem to agree upon the manifestations of shock, such as a low state such as a low state of blood pressure, rapid wiry pulse, pallor of the skin, cold sweat, livid mucous membranes, relaxed sphincters, and sub-normal temperature. To these the writer would add shallow respiration and partial or full dilatation of the pupils, depending upon the degree of shock.

Shock must not be confused with collapse. Shock pathologically is an acute arterial anemia and venous hyperemia of the brain caused by irritation of the sympathetic system. Collapse pathologically is an acute arterial and venous anemia of the brain caused by splanchnic paralysis or exhausting discharges (hemorrhage or others), with heart failure. Hemorrhage predisposes toward shock, therefore shock usually precedes or accompanies collapse.

The nature of the circulatory changes occurring in shock is the battleground of the experts. Geo. W. Crile claims after a series of experiments that irritation and stimulation of the sympathetic system result in an exhaustion of the vaso-motor center with consequent lowered blood pressure, while Eugene Boise maintains that the lowered blood pressure is due not so much to vaso-motor exhaustion as to a tonic spasm of the heart wherein diastole is markedly decreased and systole is prolonged. This imperfect diastole prevents the engorged veins from emptying into the heart, thus preventing it from supplying the vessels. . . .

No one here will dispute me when I say that the best treatment of shock is prophylaxis. Along the lines of prevention much can be done. First, in preparing the patient we should avoid depleting cathartics, trusting rather to an enema, nothing should be done to create fear upon the patient's part, and the time set for the operation strictly adhered to. Nothing disturbs a patient more mentally than having to wait for the surgeon.

In preparing the skin either before or during the anesthesia, chilling the body surface by watery solutions should be avoided. The dryer the preparation the less irritation to the nerves.

The anesthetist should be careful not to alarm the patient and should proceed as quickly as consistent with safety to get the patient asleep.

The operating room should be an even temperature and free from draughts. Most operating rooms are entirely too warm, from 78 to 80 is the proper temperature. The patient should not be too heavily draped, the hot room and excessive coverings tend to produce perspiration.

Full anesthesia is necessary for the first cut of the knife and the operation must be completed with all possible expedition. The less time and

anesthetic used, the less nerve force and bodily heat are consumed with consequent lessening of the irritation to the sympathetic. . . . —*Jour. of Surgery, Gyn. and Obstet.*

HALLUX VALGUS.—Erwin Schenk, M. D., Des Moines, Ia. Bunion of the great toe, with accompanying deformity and discomfort has not received the attention of the profession which the simplicity of the cure and the gratitude of the patient would warrant.

It is a matter of common observation and quite naturally so, I think, that hallux valgus is usually accompanied by a varied degree of flat foot. Flat foot may be due to a failure of the arch of the foot to develop from a condition normal in early childhood, or having developed is broken down again. In either case the foot will spread too much, has a tendency to develop an abundance of muscular tissue in and around the arch to compensate for the loss of elasticity in that region and the mechanical effect is to elongate the heel, while a combination of all these conditions tends to break down the arch of the regulation shoe and pack the foot forward into the toe with every step.

Lowering the heel of the shoe might retard the forward movement, but owing to the elongation of the heel of the foot we would cause aching pain in the region of the arch and the calf of the leg. Raising the heel and giving the arch substantial mechanical support improves the relation of the parts and increases the comfort of the patient. . . . —*Iowa Homœopathic Journal.*

A CLOSING REFLEXION is that it seems to require a good well-educated allopath to make a sincere and famous homœopath. And that, we believe, is one of the prime reasons why the English homœopaths are such good homœopaths.—*American Physician.*

VIVISECTION.—In 1901 Mr. John D. Rockefeller founded the Rockefeller Institute for Medical Research with an endowment of \$600,000 and since that time his gifts to that institution total \$2,600,000. The home of the institute is in New York City at the foot of 66th street and the East River and its work is confined to research, the results of which are published in its *Journal of Experimental Medicine*. The third floor of the main building is used for the laboratories of experimental pathology and there is a suite of rooms for operating on animals under the most favorable conditions, and it is here that, in experimental work, Dr. Alexis Carrel transplanted the kidneys of one animal "in mass" to another. The animal house is separate from the main building and has accommodations for animals of all kinds. This institution has always been ready and willing to co-operate with medical organizations all over the country, and perhaps its most valuable work has been done in preventing the spread of spinal meningitis, their treatment giving a percentage of recoveries of 79.9. With such thorough equipment as they possess, there is no doubt that their work will enlighten us as to the cause, prevention and treatment of many diseases which are now very little understood. At the present time there is a bill before the New York assembly to regulate vivisection within the borders of the State. The bill as outlined by the *New York Medical Journal* is as follows:

It restricts experiments on living vertebrate animals to those authorized by responsible persons, that is, representatives of institutions such as colleges and hospitals qualified by their character to grant such authorization of the State or city. It confines experiments to licensed places. It prescribes conditions which will tend to reduce the infliction of pain to the smallest amount made necessary by the demands of science, but will not interfere with experiments seriously undertaken for scientific purposes. It requires reports to be made to the commissioner of health regarding such experiments as are performed.—*The Medical Counselor*.

CONSULTATION OF DOCTORS.—There was a time in our earlier life when consultations were honorable and helpful, and were distinctly sought. But the time has come, it would appear, when they have become distrustful as to fair dealings between doctors, and of doubtful utility to the patient. Of course there are yet many exceptions to this statement, and our purpose, if possible, is to increase these exceptions until they may become common, as in the older times.

The former Code of Ethics well defined the proper relationship of consultants to the attending physician and to the patient. It was customary for the consultant to keep himself in the background, so far as the expression of opinions to the patients or his friends were concerned; but in a separate room, after getting all the facts possible, from patient and friends at the bedside, necessary for diagnosis or therapeutic suggestion, review the case with the attending physician alone, and to him alone call attention to such facts as may seem to have been overlooked, and in proper candor make such treatment suggestions as might appear requisite. Oftentimes there was found to be perfect agreement between the attendant and the consultant. The consultant did not give any expression—by word or manner—of disagreement of opinion to any outsider. Then, confidence was retained in the attending physician, and he remained the family doctor for years.

But how changed! Now, when the consultant is called in, he assumes in the presence of patient and friends an air of superiority, and in the consultation room is rather dictatorial than advisory. In the sick room, with an air as if he had discovered something overlooked by the attendant, he remarks upon the quality of the pulse or respiration, or the appearance of the tongue or some condition noticeably by percussion or auscultation which had already been noticed. In short, he tries to impress the patient and the friends around that *he* has found it all out, and that *he* will recommend a line of treatment which will cure in a short time. In the consulting room, in a voice to be heard all over the house, he recommends a "favorite prescription" which scarcely in any essential differs from that already being used. On the street, he speaks with confidence as to the recovery of the patient, *if his prescriptions are properly followed*. If he recovers, he was called just in time to save life. If the patient, however dies, or goes into a lingering illness, it was simply because the attendant did not carry out every detail of his recommendations in consultation.

It is plain that the pomposity and the "know-all" appearance of such consultant, if the patient be one of good financial means or influential among the people, is to impress *himself* upon their wondering attention

rather than the good he may do the patient or the help he may give the attending physician. What cares he for the feelings of the attendant, or the imputation of incompetency he places upon him, so he gains the patronage of the wealthy and influential?

More marked, perhaps, is this manifestation of over-bearing in cities where there are medical colleges, and where some are "Professors" or "ex-Professors," in their dealings with their graduates—even of years ago. Yet we notice that in certain sections many of the doctors called in consultation still keep in mind the Golden Rule. This appears to be more specially true of country doctors.

There can scarcely be any doubt as to the greater infrequency of consultations sought by attending physicians than formerly—due to the apprehension that the consultant will, by hook or crook, secure the future patronage of his patient and friends. This can all be remedied by the proper observance of the advice given in the old "Code of Ethics" of the profession.

These remarks do not apply to "referred practice," where a specialist's aid is sought. It would indeed be very impolitic for specialists to adopt any other habit than that of speaking kindly of the attending physician to both patient and his friends; for they might otherwise rob themselves of future referred patronage from the general practitioner.—*The Virginia Medical Semi-Monthly.*

PSYCHOTHERAPY.— . . . It is but human nature that enthusiasts lose their balance, the perspective and their sense of proportion. This may be considered the characteristic of a fad; and measured by this test Christian Science should be so classed—inasmuch as it considers its exposition the only aspect of truth and denies the common experiences of the whole world.

The Emmanuel Movement—whose enlistment of the medical profession incites this editorial—seems to be less unbalanced, but to the dispassionate observer it has its inconsistencies.

In how much is its inception due to jealousy of the rapid growth of the Christian Science church? Much more largely, we suspect, than even its originators realize—particularly as one bears in mind that the problem how to attract people to their churches is and has been one of the most pressing problems of the Protestant clergy. Yes, the lure of free doctoring is most attractive. Notice how the ministers who take this up rush—we beg pardon, glide with dignity—into the daily press; how much free advertising they get. Undoubtedly Dr. Worcester was and is sincere, but we anticipate that the association of physicians with the clergy, which is the characteristic of this movement, will prove but a sop to Cerberus—that it will sooner or later become an empty form. The other day a newspaper notice of another clergyman taking up his work stated that "if the associated doctor or doctors thought the patient's ailment was of a nervous nature, or of a kind that would yield to the Emmanuel thought suggestion method," the patient returned at appointed times to the pastor's study where he was told to "forget it." A few lines further we are told that "one man suffering from rheumatism has received aid." . . .

Another inconsistency is that the Emmanuel movement, so far as we see, is attempting to cure physical disease by mental suggestion, per se; in

Christian Science the mental suggestion is frankly on the religious, they would say spiritual, plane. Why should one go to these clergymen instead of to some Mental Scientist who has not been ordained if they are not emphasizing the dependence of the physical upon the spiritual man and upon God—Divine Healing?

The State of New York has found it necessary to enact a legal definition of the practice of medicine: "A person practices medicine within the meaning of this act . . . who shall either offer or undertake, by any means or method, to diagnose, treat . . . or prescribe for any human disease, pain . . . etc." It surely seems as if the reverend gentlemen in question are violating the law, and that they do not comply with it by asking their patients to bring notes from certain associated physicians!

We write to urge that these physicians *continue to be the physicians in charge* of these patients who are "treated" by the clergymen, just as they would continue to be the physicians of such patients as they would order to take a course of massage, etc.

Reading one or two medical or semi-medical books does not qualify any one to undertake the treatment of sick people, except in association with a medical man who consciously keeps himself in touch with his patient and realizes his responsibility.—*The Homœopathic Eye, Ear and Throat Journal*.

THE AVERAGE PATIENT.—The *Medical Times and Hospital Gazette* tells of a man who dropped into a country doctor's office for "something to straighten me out." Beyond being tired, fagged and lifeless there seemed to be nothing wrong with the man, so the doctor asked him if he had been taking any medicine. "No, none to speak of," was the reply; he had taken about three pints of the extract of dandelion and then had tried two bottles of some one's "healing compound," but these doing no good he had tried several boxes "sure cure pills." Then his wife had administered poke berry, calamus, mullein, rue, boneset, tansy and a few other herbs; then he had tried something from a Gipsy woman and then a bottle of something from a peddler. All this "doing no good" he became rather discouraged, and of late had been taking nothing but quinine pills and some bitters, and as he was not gaining thought he'd "drop in" to see if the doctor thought he needed anything else.—*Homœopathic Envoy*.

If the foregoing be "really true" of the "Average Patient," those above and below the average must be pretty bad also. This shows that the American Medical Association is wise in resolving to instruct the laity. It is little wonder that the specialist in medicine homœopathic discovers an appalling number of chronic invalids who have been the round of all the other specialists. Some of the maladies belong diagnostically to traditional classifications, but more are nondescript disorders in such variety as to indicate without shadow of doubt an opulent pathology due entirely to omniverous drugging.—J. H.

HYPERSENSITIVENESS TO ANTIDIPHThERIAL SERUM.—About four years ago I gave myself a prophylactic dose of anti-diphtherial serum of 1,000 unites in the left forearm. Nine days afterwards an urticarial rash appeared all over the left upper extremity, but nowhere else. It disappeared within a day or two.

Eighteen months ago I again gave myself a similar dose, in the same place. On the evening of the ninth day, after dinner, I suddenly came out in an urticarial eruption over the left arm, front of chest and abdomen. The rash appeared literally in a few minutes, and was very profuse. I walked from my drawing room into my study, a distance of a few paces, to consult Dr. Kanthack's article in Professor Sir Clifford Allbutt's *Medicine* on the subject. Before I found the reference the rash disappeared, and I was immediately seized with such faintness that I had to lie prone on the floor. In a few minutes I had sufficiently recovered to crawl upstairs on hands and knees and climb into bed. *Pari passu* with this improvement of feeling out came the urticarial rash once more all over my body, on the abdomen and thorax the wheals being as large as a good-sized plate. In a few minutes more the lips and buccal surface of the cheeks began to swell, and a most uncomfortable feeling behind the sternum and in the epigastrium became noticeable, suggesting that the œsophagus and stomach were taking part in the orgy. I passed a most unhappy night, no vomiting, like my brother sufferer, Dr. Thorne, but a continued misery of feeling that post-sternal and epigastriaic pain would go if I could only bring up flatus. However, between three and four a. m. the discomfort abated, sleep came, and I awoke later in the morning feeling quite well, with the rash gone, and able to do my day's work as though nothing had occurred.

Some of the interest of these attacks lies in the questions they suggest. For instance, why should a poison, being presumably a chemical poison and not a living one (like the bacillus of enteric fever) require so long an incubation period as four to ten days before getting to work? It is that the horse's serum undergoes some lengthy process of elaboration in some organ and that the result of this biochemical process is the peccant material?

Again, the rapid alternation of incidence of the poison is interesting at one time appearing on the skin, at the next deserting the skin and falling upon the circulation. Sairey Gamp is fond of remarking that the child will do well because the measles rash has come out well, and all of us have doubtless noted that this, like many of her other *obiter dicta*, contains some modicum of truth. Our gouty friend, who tells us that he dreads the disappearance of the chronic squamous eczema about his shins, as he always then feels unwell is another case in point.—W. Bligh, M. D., London, in *Homœopathic World*.

THE HAHNEMANNIAN MONTHLY.

AUGUST, 1908.

HOMŒOPATHY.

BY

T. H. CARMICHAEL, M. D., PHILADELPHIA, PA.

(Read before Homœopathic Medical Society of Berks County, Pa., July 15, 1908.)

As my part of this symposium on homœopathy I shall confine my remarks almost exclusively to the branch in which for the past eleven years I have given my earnest thought and attention—the development of homœopathic pharmacy.

It is significant that the past year has witnessed an awakening to the realization that we possess in our pharmacopœia a work of the highest scientific accuracy, whose universal adoption and use is absolutely necessary to substantiate our claim to a scientific *materia medica*.

To prove that we possess such a *materia medica*, we must adhere to a single, uniform, scientific standard in the preparation of the remedies by which the truth of the homœopathic method is to be demonstrated.

Unfortunately in the past the mass of our practitioners have taken little interest in this subject. Their knowledge of the law of similars has made them satisfied that any kind of a preparation of aconite or sepia furnished by their homœopathic pharmacist would remove the symptoms caused by these remedies in their provings—and their faith in their pharmacists has been sublime.

The pharmacists, however, have not all been true to the best interests of the homœopathic profession. In many instances they have for sordid, pecuniary reasons pursued independent methods in the preparation of our remedies, endeavoring to make trade by exploiting their diversities and claiming superiority for the varying strengths of their preparations. Of course, nothing but confusion has resulted from this lack of uniformity, and even our literature has been made comparatively weak (in scientific value) from its prevalence.

This has existed in face of the fact that since 1897 we have had an official standard pharmacopœia, which after years of work in its preparation, was in that year presented to the American Institute of Homœopathy and adopted by it.

Its original title, the Pharmacopœia of the American Institute of Homœopathy was changed in its first revision in 1901 to the more comprehensive one, The Homœopathic Pharmacopœia of the United States.

In addition to its adoption by the American Institute of Homœopathy, the Homœopathic Pharmacopœia of the United States has also been adopted as the national standard by the State homœopathic societies of Massachusetts, New York, Pennsylvania, Rhode Island, New Jersey, Kansas, Illinois, Minnesota, Wisconsin, Louisiana, Vermont, Connecticut, Iowa, Oklahoma, Ohio, Maryland, Michigan, California, Maine, Oregon, Nebraska and New Hampshire. These make a majority of the state societies and contain 81½ per cent. of the membership of our state societies.

As this official action of the national and state societies is the only known method by which a pharmacopœia can be adopted, there can therefore be no question that the Homœopathic Pharmacopœia of the United States is the standard for the preparation of our remedies and as such should be at once adopted by all our homœopathic pharmacists.

It may be of advantage even at this late date to refer to some of the benefits that will result from its universal adoption.

First.—Uniformity in our preparations instead of the previous condition where every pharmacist was a law unto himself.

Uniformity in the strength of tinctures all, with very few exceptions, being of one-tenth or 10 per cent. drug strength.

Uniformity in that the strongest liquid preparation—the tincture being one-tenth or 10 per cent. or the 1x dilution

corresponds to the strongest solid preparation, the 1x trituration.

Our Pharmacopœia adopted the method of the British Pharmacopœia, which makes all tinctures, whether from fresh or dried plants, 10 per cent. drug strength.

It deviates from the British standard in the naming of the dilutions. That pharmacopœia considers the tincture as unity and calls the preparations made by taking one part of the tincture and nine of the menstruum the 1x dilution.

In the Homœopathic Pharmacopœia of the United States the tincture of 1-10th drug strength (the same strength as the British) is more properly named O or 1x, or one-tenth dilution of the crude drug—so that the lowest dilution that can be made from the tincture is the 2x.

As the lowest or strongest trituration of a solid substance is also the 1x or one-tenth, we have a uniform nomenclature for the strongest liquid and solid preparations of homœopathy.

There are very few exceptions to this one-tenth or 10 per cent. tincture strength. The most notable of these is phosphorus, which cannot be dissolved in less than 667 parts of alcohol, and its tincture is therefore a little stronger than a 3x dilution, which contains the 1-1,000 part of the crude drug. Sulphur requires 5,000 parts of alcohol for its solution. The strongest possible tincture of sulphur must therefore be between the 3x and 4x dilutions in strength.

The fact that we name our tinctures exactly what they are—1x dilutions of the crude materials—has been seized upon by some pharmacists to exploit their own tinctures upon gullible physicians as stronger because they were marked as unity, and the 1x dil. is to be made by taking *one* part of the tincture to nine parts of the menstruum.

It is obvious that there is a difference of at least ten points of the decimal scale between two such 1x dilutions.

In reporting cases in which such dilutions are used, scientific accuracy would require that the strength of tincture be given and whether it was considered as unity in the preparation of the 1x, otherwise the terms 1x, 2x, 3x, etc., are meaningless.

On the other hand, with the universal use of the pharmacopœia, no explanation would be needed, as a writer who reported the use of the 1x dil. and another who used the O sign, would both be understood to have used the same strength of preparation.

In the second place, the preparations of the Homœopathic Pharmacopœia of the United States are the best products of homœopathic pharmacy.

Even the old school admit the fact that a 10 per cent. drug strength is the best uniform strength for tinctures, and in the last revision of the United States Pharmacopœia they cut down the strength of several potent drugs to 10 per cent.

A tincture is the alcoholic or hydro-alcoholic solution obtained by exhausting a given quantity of plant or other material of all its active principles or properties.

A sufficient quantity of menstruum must always be used to secure this result.

In this connection the attempts of some of our pharmacists to sell supposedly strong tinctures made by taking one part of the substance to one of alcohol are open to severe censure, as in nearly every instance such a small quantity of menstruum cannot exhaust the substance. In fact, most tinctures made in this fashion would be very weak in therapeutic effect, as the small quantity of menstruum used has dissolved out coloring matter and inert material, while most of the real active principles have not been reached.

Some pharmacists who have not yet adopted the standard, make their preparations according to a book called the American Homœopathic Pharmacopœia. This book makes one class of tinctures by pressing out the juice of fresh plants and adding an equal quantity of alcohol, and marks such tinctures as one-half or 50 per cent. drug strength. The truth is that the drug power of such tinctures is not over 6 per cent. The juice of a plant contains but a small part of its active principles. The Homœopathic Pharmacopœia of the United States properly repudiates such tincture—making and using not only the juice but the solid parts of the plant from which to extract its virtues.

The reason that is given for continuing these weak pharmaceutical processes is that they were the methods of the original provers. It is inconceivable how a well made tincture containing the full quantity of active principles should not be better adapted to the provings than a weak tincture containing the same active principles, but in smaller quantities.

When the magnificent proving of belladonna was undertaken by the O. O. & L. Society, with the aid of the American Institute, the tincture used was made in Germany according

to the direction of the Homœopathic Pharmacopœia of the United States. When received here it was submitted to assay and tests by Professor Scoville, of the Massachusetts College of Pharmacy. He reported that the alkaloidal residue yielded the characteristic crystals of the mydriatic alkaloids and the purity of the tincture was established.

It is known to you all that the symptoms of the original provers of belladonna were confirmed by this great proving. It gave us the old symptoms and a more extended knowledge of the drug.

Before we leave this subject which has proved a bugbear to many physicians, take down your Cyclopædia of Drug Pathogenesis and see how the original provings of belladonna and other drugs were made.

In the case of belladonna, in addition to the expressed juice tincture used by Hahnemann, Schneller took the alcoholic extract of the whole plant and also the inspissated juice of the leaves, Walzl used the dried root, Purkinje used a concentrated aqueous infusion of extract. Scheidtweiler also took the extract, as did Schlosser. There was also a good proving made from a solution of a half drachm of extract to one ounce of water.

In the future never let a pharmacist tell you that his belladonna or any other drug is prepared according to the methods of the original provers for they were multiform, but insist upon the official preparations of your standard pharmacopœia, because they contain the active principles of the plants and thus cover all the symptoms that were obtained from the varied preparations used in the original provings.

The American Institute of Homœopathy has decreed that in all future provings the substances used shall be prepared according to the directions of the Homœopathic Pharmacopœia of the United States.

Feeling that the time has arrived when it is incumbent upon every physician to see that his pharmacist prepares his remedies according to one universal standard (in the United States), the American Institute of Homœopathy at its late meeting in Kansas City unanimously adopted a resolution calling upon all our homœopathic pharmacists to prepare their remedies on and after January 1, 1909, according to the Homœopathic Pharmacopœia of the United States. All physicians are urged to demand of their pharmacists remedies pre-

pared according to this standard. Pharmacists are to state the fact on the label that the remedy has been so prepared.

This must be done in order that our *materia medica* shall rest upon the finished foundation of a scientific pharmacy.

There is another practical reason why it must be done. In June, 1906, Congress passed the Food and Drug Act (commonly called the Pure Food Law) in which through omission of the mention of your homœopathic pharmacopœia, all homœopathic remedies are classed among the proprietary or quack remedies.

With the object of correcting this error and injustice, the Committee on Pharmacopœia of the American Institute of Homœopathy, early in the last session of Congress, prepared amendments to the Pure Food Law, providing for the insertion of the words, or in the Homœopathic Pharmacopœia of the United States, after the words United States Pharmacopœia or National Formulary wherever they occur in the act.

These amendments were introduced in the Senate by the Senator from New Hampshire, Dr. Gallinger, and in the House of Representatives by Hon. John Dalzell, of Pennsylvania. In the Senate they were reported favorably by the Committee on Manufactures and were passed by the Senate.

In the House of Representatives they have not yet been reported from the Committee on Interstate and Foreign Commerce to which they were referred.

It has come to our knowledge that certain homœopathic pharmacists have endeavored to create the impression that we have no standard or that we have more than one standard, and they have so written members of the committee. Such action has had the effect of hindering and delaying the passage of the amendments and cannot be too severely condemned.

It is the duty of our physicians to see that such impressions are counteracted and that these pharmacists who are the dependents of the medical profession shall not become its dictators.

As the present Food and Drug Act stands, its standards, the United States Pharmacopœia and the National Formulary, are defective because they make no provision for the strength of about 300 fresh plant tinctures which are used by several thousands of physicians. There is only one formula for such tinctures in the United States Pharmacopœia, viz.: to use 500 grammes of the fresh plant (moist magma) to 1,000 cc.

of alcohol. This will give tinctures of varying strengths according to the season, whether wet or dry, whether the plant lost some moisture by evaporation before it was used, etc.

The Homœopathic Pharmacopœia of the United States, by providing for the preparation of these tinctures so that they shall always be 10 per cent. drug strength, is therefore needed in the law as the complement of the United States Pharmacopœia and National Formulary to make a complete standard.

It is also needed in order that justice may be done to the great homœopathic profession, whose remedies are under the law classed among the proprietary or quack medicines.

In conclusion, our exhortation would be, study your pharmacopœia, use the formula that is given after each drug for making the 2x and higher dilutions. Make your pharmacists furnish you with remedies prepared according to the standard, the Homœopathic Pharmacopœia of the United States. They will do so if you insist upon it. Refuse to take his "just as good" or "better" preparations. Use every effort in your power—by letters and personal work with Congressmen to aid the Committee on Pharmacopœia in its work next winter to have the Homœopathic Pharmacopœia of the United States placed in the Food and Drug Act.

We are entering upon a new era in homœopathy—shall we call it the era of recognition? At last through roads of its own making the medical world is catching glimpses of the beautiful structure whose erection was begun by Samuel Hahnemann. The massive dome Similia has been seen by Von Behring in Germany and Huchard in France, while through another road that of the opsonins, Wright, of London, and others have seen the great arches and columns of the single remedy and the infinitesimal dose. When their eyes have sufficiently observed the superstructure let us show them the foundation—the solid, enduring, uniform creation of scientific homœopathic pharmacy.

LOCAL BALDNESS: ITS MANIFESTATIONS, DIAGNOSTICS AND TREATMENT METHODS.

BY

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(Read before the Delaware County Homœopathic Medical Society, at Strat-haven Inn, Swarthmore, Pa., May 14th, 1908.)

MR. PRESIDENT, members and guests of this society, it is my pleasure and honor at this time to greet you with a paper on local baldness. Just about a year ago I read a paper, entitled "The Evolution of Baldness," before the Germantown Homœopathic Medical Society, just about a month later I followed this with a companion paper on "Seborrhœa," which I read to your close neighbor, the Chester County Medical Society. Frequently since then I have been requested to complete the series, and write a paper on local baldness, which paper I have prepared for your society, and thus completing the entire question of baldness, including its ever present companion, seborrhœa. I shall begin my paper with a general consideration of the local baldness to be found on the scalps of children, following this with those conditions more apt to be found in adult life. First of all I shall mention a condition known as false ring worm, following this with the local baldnesses, resulting from phthiriasis, impetigo, furunculosis and trauma; I shall then consider the true ringworms of the scalp, both the large and small spored varieties; including the ringworms of animal origin, known as Kerion Kelsi. Alopecia Areata, the form known as ophiatic alopecia, pseudo alopecia areata of Brocq, the local alopecia, following the infectious fevers, the alopecias of syphilis, and those resulting from cicatrices, shall all be considered in their order.

Permit me to begin then, with a consideration of the false ringworm, a condition described by both Alibert and Devergie. In the scalps of children will occasionally be seen a localized area of presumed baldness. On close inspection, however, it will be seen that, instead of the area being devoid of hairs, they will be found closely matted down beneath numerous heavy scales. This lesion is usually located upon the vertex,

yet is occasionally seen on other parts of the scalp. This condition is as well to be seen presenting itself upon the sites of old lesions of true ringworm and alopecia areata, seeming to be the result of the after effects of strenuous treatment, and usually responds to the use of tar in association with resorcin and ichthyol, in the following proportions: Oil of cade, one drachm; resorcin, forty grains; ichthyol, one drachm, to the ounce of petrolatum as a base. The ointment should be well rubbed in at bedtime, and continued for about two months; this is essential in order that the condition does not return. The lesion itself usually disappears in from two to three weeks.

Local patches of baldness are at times to be seen upon the scalp in children suffering with phthiriasis or pediculosis. The areas are usually devoid of all hair, irregular in outline, varying in size from a dollar to that of the size of the palm. The affected parts are covered with heavy, moist, oozing crusts and scales. There is a foul smelling odor, a gummy exudate and the presence of the louse and the eggs. The easiest and quickest method of treatment is the so-called one night treatment. A bottle of carbolized vaseline is thickly spread over the entire scalp at bedtime, which is allowed to remain until morning, when it is washed off with hot water. It will be found that the pediculi live no more, having been smothered, by the vaseline, which by capillary attraction was taken into the breathing tubes of the louse. The nits are removed by soaking the hair in hot vinegar. The area of local baldness can be treated with a mildly stimulating ointment, or will respond without treatment, the hair again retaining its full growth.

Local baldness occasionally follows impetigo of the scalp, and is to be seen associated with lesions of impetigo upon the face and elsewhere, and is occasionally mistaken for alopecia areata, the presumed contagious form of alopecia areata. There is no doubt but that many of the so-called epidemics of alopecia areata are, in reality, but attacks of local baldness, following impetigo.

I glean from Vol. XVIII, No. 1, of the *Derm Zeit.*, Berlin, that it was reported that twelve out of thirty-five policemen, in a certain police station, all developed alopecia areata. It was the custom of the policemen, when off duty, to throw themselves upon the beds occupied by their fellow policemen, in order to take a nap. It was noted that the areas affected were those parts of the scalps which came in contact with the pillows. Might these not all have been attacks of post impetigi-

nous alopecia? Local baldness following impetigo is to be differentiated from other forms of local baldness, by the fact of existence of impetigo elsewhere; the areas being decidedly red in color, the tendency to a rapid regrowth of the hairs, and the appearance of crusts still adhering to the neighboring hairs. Little if any treatment is necessary, outside of the treatment for the existing impetigo.

Local baldness is as well to be seen following in the wake of the impetigo of Bockhart and furunculosis; the former condition predisposing to the latter. The impetigo of Bockhart presents itself as numerous pinpoint to pea-sized pustules, greenish and yellowish in color, each pustule being penetrated by a hair. This condition might be primary, or it might follow the after treatment for ringworm, alopecia areata, phthiriasis, etc. Local baldness following this condition presents itself as minute areas corresponding to the site of the pustule, from one to fifty to hundreds in number; each area showing a small cicatrix.

The impetigo of Bockhart is not very amenable to treatment, the condition often lasting for a long time; occasionally it responds to the compound zinc sulphide lotion and the various preparations of sulphur ointment. The resulting alopecia responds after a long duration of time without treatment, the scars, however, always remain. Local baldness is occasionally to be seen following a blow or contusion, even a shock has been known to produce areas of local baldness. In the alopecias following a blow or contusion, the areas follow the geographic outline of the injured part, the hair usually returns in from six to eight weeks, treatment not being necessary.

I shall now consider for a few moments the two varieties of local baldness produced by the ringworm. Firstly, I shall have a few words to say with reference to the more common or small spored ringworm. This produces the typical ringworm of the scalp, with its goose flesh appearance, its stumps of broken off hair and its definite circinate borders. The patches are characterized by dry squamns or scales, usually grayish in color. The hair usually breaks off close to the scalp, leaving the stumps exposed, and which can be easily removed by the fingers, and this act in itself being sufficient to differentiate this form of ringworm from all of the other forms. Several patches may exist at the same time with lesions of the ringworm upon the nape of the neck or upon the body. The condition is decidedly chronic, often persisting from one to

ten or fifteen years, and then occasionally undergoing spontaneous evolution. The various patches may undergo coalescence, eventually covering the entire scalp. The microscope is of the utmost assistance in the diagnosis of this form of local baldness. Several of the remaining stumps of hair are removed by the fingers and are subjected for a few moments to a warm solution of liquor potassae, between two slides. The microscope shows the hair shaft covered with highly refractive spores, and appears as if the hair had been stuck in paste and covered with sand.



Local Baldness of the hereditary specific type. Patient shows all the stigmata of hereditary syphilis; baldness began in localized areas, which gradually coalesced; several patches of hair still remain posteriorly. The patient has been under treatment for the past two years, with but little improvement; a fine downy growth at times appears, only to again disappear. (Author's Case.)



Local baldness of the neurotic type. Of one year's duration; began as a small circumscribed area, which gradually spread to its present dimensions. Had been treated with all sorts of local treatment without avail. Cured in six months by the internal administration of Phosphorous 6X, one dose at night, without further topical treatment. (Author's Case.)

The large spored ringworm is not so common, and it is not as easily recognized. It presents itself as many minute lesions, which appear as dry scales or crusts, beneath which are the hairs; they are not broken off as in the small spored variety, they are never as large in area, do not tend to coalesce and are more numerous. This variety is rarely diagnosed, especially when the hair is long, its presence often being hailed

by the appearance of segments of circles upon the neck, which are macular in type and which are very finely vesicular at their margins. The microscope shows much larger spores than those to be seen in the small spored variety, and are arranged in regular mycelal chains.

Local baldness is occasionally produced by the ringworm of animal origin. I refer especially to the condition known as *kerion kelsi*. This form of ringworm differs only in the fact that there is usually a large primary patch with associated secondary lesions about the mother patch.

The treatment of the various forms of ringworm demands the use of an antiparasiticide, iodine, diluted one to five as a prophylactic for the unaffected portions of the scalp, and iodine pure for the lesions seems to be a satisfactory method of treatment. Ungents of ammoniated mercury, betanaphthol, sulphur, etc., as well do good. In those forms associated with inflammatory reaction of the follicles, epilation is unnecessary; in *kerion* and those forms without inflammation epilation should be practiced at least once in two weeks. *Kerion* seems to respond better to simple cleanliness, with moist antiseptic dressings, than it does to the iodine treatment. In all the other forms there is no doubt of the efficacy of the X-rays in their treatment. The local baldness in *alopecia areata* now concerns us. Beginning at any point on the scalp, without warning, save rarely a slight itching, the hairs suddenly fall out in patches, irregular in outline, and often never ceasing in its onward march until it has denuded the entire scalp. There is no logical explanation for this form of local baldness, nor is there any logical treatment. Some hold to the parasitic theory, others to the neurotic theory; one side has just as many advocates as the other. The areas of baldness in this condition are smooth, lusterless, absolutely devoid of hairs, save occasionally here and there a lone hair, struggling bravely for existence, or occasionally a fine downy growth can be seen, especially after regeneration takes place. Occasionally this form of baldness will limit itself to the borders above the ears and travel circinatly around the scalp until it has denuded the entire area traversed, making a peculiar picture to behold. This form of local baldness is known as *ophiasic alopecia*. The cure is always slow, in some cases the new growth of hair responds in from three to four months, in other cases a year to a year and a half is needed to effect a cure. Certain it is, the younger the patient the more apt is the hair to return. The

prognosis after the fortieth year is not good, yet cases have been seen in which hair has returned at this age. The present methods of treatment all demand stimulation, the stimulants used happily being antagonistic to micro-organic life, so that if there should be micro-organisms present, they will be dealt with at the same time. It seems to make very little difference which of the stimulants is used. It has been my habit to use equal parts of carbolic acid and alcohol or glycerine. Pure carbolic acid can be applied on small areas and should be closely watched as to its reaction. If too severe, it can be



Local baldness following a dermatitis resulting from pediculosis. Of six months' duration, with a gummy foul-smelling exudate. Rapidly healed under the local application of five per cent. white ppt. ointment, using the ungt. calamine as a base. *Staphsagria*, 3X was administered, one dose at night. (Author's Case.)



Local baldness associated with trichophyton infection. The areas affected were covered with apparent seborrhœic scales, which, on microscopic examination proved to be the trichophyton fungus. The child was dark complexioned, sallow and somewhat feeble. Cured with *Sepla*, 12X, one dose at night, without topical treatment. (Author's Case.)

controlled by the application of 95 per cent. alcohol. The pure carbolic acid should not be applied again until the inflammatory reaction has subsided. Beta naphthol, ammoniated mercury, chrysarobin, capsicum, are all of service, but to no better advantage than the carbolic acid. The X-rays, the high frequency currents and the galvanic currents are likewise of good, but still to no better advantage than the treatment already

outlined. I have had some good results with the use of the dry cup in producing local hyperæmia.

We are now ready to consider some of the forms of local baldness especially to be seen in the adult. In chronic pulmonary tuberculosis, there are occasionally to be found, areas of local baldness upon the scalp. Jacquet explains this condition by contending that it is due to compression of the superior sympathetic ganglion by adhesions of the pleura. The region mostly affected is the occipital and is usually cured *parripassu* with the tubercular condition of the lungs. This form of local baldness occasionally takes the form of ophiasis, as already explained, under the local baldness of children.

Occasionally there will be seen areas of local baldness, in women, at the time of the menopause, and in men at about the fiftieth year. The lateral frontal and parietal regions are usually affected, and it is peculiar to note that the alopecial process usually avoids the gray hairs in the regions affected.

Let us next consider the form of local baldness known as pseudo alopecia areata of Brocq; this form of alopecia is due to a cicatricial atrophy of the hair follicles. It presents itself as areas of smooth, shining cicatrices, which at first are quite red and later become white and are slightly concaved. There is a tendency to coalescence forming quite distinct islands of baldness, giving to the scalp a most unique appearance; here and there are to be seen a few hairs which have not been affected; the process is a very slow one, usually extending over a period of fifteen years in its evolution. There is, as a rule, no renewed growth of the hair to be expected, as the process is a cicatricial one. Like all of the rest of the alopecias the causation factor is unknown, and the condition is unamenable to treatment. Sulphur in its various forms, however, seems at times to retard the process. This process is somewhat similar to the process to be seen in *acne de calvans*. It is to be remembered that after many of the infectious fevers and the depleting diseases, that we may have areas of localized baldness. This no doubt is due to the atrophy of the hair papillæ, with a loss of their function, due to the results of the existing toxins in the circulating medium. Local baldness is to be seen especially after erysipelas; it has as well been seen after attacks of measles, mumps, small-pox, scarletina, diphtheria, pneumonia and peritonitis. These forms of alopecia usually persist for a period of about six weeks. There is usually no specialized treatment necessary, as nature is usually

able to care for the condition. Tonics, however, are of advantage in building up the patient's general bodily condition.

We are now ready to take up a consideration of the local baldnesses which are accounted for by syphilis; we shall consider two classes—those which are hereditary in nature and those which are the results of direct infection. In the first class, the local baldness usually begins about the nineteenth year, the process is usually progressive, and usually never ceases until the entire scalp is devoid of hair, even affecting the eyebrows and the pubes. These cases usually give or present the stigma of hereditary syphilis. There are Hutchinson's teeth, or perhaps teeth which are striated or notched, they are deformed, there might be a crescent shaped head upon the individual, there is a tendency to underdevelopment, sabre shaped tibias, deafness, etc. The family history in these cases, occasionally tells of numerous still births and miscarriages; babies dying in infancy. Treatment seems to be of little avail, even with specific treatment. I have a photo to show you of a patient who started out with a patch of local baldness, which gradually became universal, and who showed all of the stigmata of hereditary syphilis, and who absolutely refused to respond to any sort of treatment, although the patient was most faithful in carrying out the routine which I suggested to him, having remained under my care for a period of two years. The best that I was able to do was to cause a fine, downy growth to return, with here and there a few straggling hairs an inch or two long. The mercurial treatment had been faithfully and persistently tried.

The local baldnesses following the direct infection of syphilis usually occur at about the sixth month, although this date is variable. It seems to be a rule, however, that this form of alopecia does not occur after the first year of the disease. The location is usually temporo-parietal, the areas of baldness seem to have a characteristic mangy or moth-eaten appearance, and if the hair is worn close, it has the appearance of having been poorly cut, seeming to show a number of cross ridges, as if the hair had been cut in steps. The usual concomitant symptoms of syphilis are present; if absent, however, this peculiar and characteristic appearance of the hair is sufficient to warrant a diagnosis. The hair usually returns in from five to eight weeks, without treatment, which often gives a patient a false sense of his or her security; the treatment is not of especial import.

Lastly, let us consider the forms of local baldness resulting from cicatrices; it is important to be able to differentiate between a cicatricial and a non-cicatricial alopecia, for reasons which are more than obvious. In the one condition there is an absolute impossibility of ever being able to cause a return of hair and means the wasting of a lot of good effort. A good point of differentiation is the presence of the follicular orifices in the non-cicatricial form and which are entirely absent in the cicatricial form.

Hodara has suggested the transplantation of hairs into these cicatrices; the results have been mediocre. The local baldnesses resulting from traumatic cicatrices are usually linear or angular; those of boils are punctiform, and those of acne necrotica are varioliform. The cicatrices of lupus are elongated and geographical in outline; then there are the local baldnesses resulting from burns; these can be distinguished from other forms for the fact that there are usually to be seen a few surviving hairs distributed here and there. There are as well many other forms of this variety of baldness which are more or less self-evident and which I shall not enter into at this time.

The question of homœopathic treatment in these various forms of local baldness must necessarily concern us. In the purely parasitic infections, as in the various forms of ring-worm, there is no doubt of the assistance rendered by the aid of the indicated remedy, surely increasing the resistance of tissues and assisting as well in their regeneration. Among the remedies to be considered are, *Sepia*, graph., *kali bichrom.*, *lycopod.*, *merc. bin.*, *phos.*, *sulphur* and *Kali carb.* Dr. Franklin Powell, of Chester, reports the successful use of *tuberculin*, 30x, without topical treatment.

Among the remedies to be considered in alopecia areata are, *phos.*, *vinca minor*, *cal. phos.*, and *fluoric acid*; perhaps the one remedy which in my own hands has given the most success is *phosphorus*, 6x, one dose at night.

IMMUNIZATION BY WAY OF THE MOUTH.—Chvostek has experimented with animals to determine the possibility of inducing active immunity to bacteria by feeding them with dead cultures of virulent micro-organisms and their toxins. He demonstrated that such an immunity can be established, but much less readily than by the subcutaneous method—*Wiener Klinische Wochenschrift*, No. 14.

HAY FEVER.

BY

WILLIAM M. HILLEGAS, M. D., PHILADELPHIA, PA.

(Read before the Delaware County Medical Society.)

SINCE Bostock in 1819 first described hay fever many theories have been advanced as to its cause, and as many methods of treatment suggested. Perhaps the cause is as yet undetermined, and surely no line of treatment is universally successful. While practically, we are particularly interested in its treatment and relief, to understand the action of the most successful method of relief, as I believe, it will be necessary to delve briefly into the etiology.

The name itself is a misnomer, and its division into spring catarrh and autumnal catarrh is rather arbitrary. There are forty-two known plants besides rye, the pollen of which has been proven to cause an attack of spring catarrh, the so-called rose fever; and twelve plants besides goldenrod and ragweed, the autumnal variety, or true hay fever. I prefer to call it hyperæsthetic rhinitis, as Sajous does.

By hay fever is meant a group of symptoms, consisting of premonitory ones; itching in the eyes and roof of mouth, lachrymation, fullness in the nostrils, discomfort in nasal breathing. These last for a week or more and are followed by sneezing, which is paroxysmal and becomes violent, turgescence of the lining mucosa of the nose, with profuse watery nasal discharge; increase of eye symptoms, conjunctivitis, impeded breathing, ichorous nasal discharge. This lasts for six weeks or more. As complications, asthma is frequent; frontal headache, anorexia, tinnitus, urticaria, disturbed digestion, insomnia, loss of smell and taste, severe nervous depression; any or all of these may occur. The attacks occur late in May or early in June (rose fever) and again from the middle of August to early in September (autumnal fever). Rarely patients have an attack at each season, and less frequently it begins in May and lasts until September. There are some cases of hyperæsthetic rhinitis which persist all the year; these are not true hay fever, and are not caused by pollen, but are absolutely local in their origin.

The disease is particularly prevalent in North America. It

affects three men to one woman. It usually attacks the same person at the same time each year, sometimes to the exact date, here showing the neurotic element.

Among the theories as to etiology, those most accepted have been the neurotic, the uric acid and the local. That it is not a germ disease, I think has been proven by Dunbar. That it is a reflex functional neurosis seems to me to be the most plausible cause.

Sajous calls it a "superficial organic alteration of the nasal mucous membrane," describing it "as an affection characterized by periodical attacks of rhinitis, complicated sometimes with asthma; occurring as a result of a special susceptibility on the part of certain individuals to become influenced by certain substances owing to a deranged state of the nerve centre. It manifests itself only, provided the mucous membrane primarily affected in the course of an attack is in a state of hyperæsthesia, and when the irritating substances are present in the atmosphere."

There are three distinct elements necessary for the production of an attack of hay fever:

First.—A neurosis of the brain cells in the neighborhood that controls the sphenopalatine ganglion and the nasal branches of the ophthalmic nerve.

Second.—A hyperæsthesia of the nasal mucous membrane.

Third.—The presence in the air of certain irritating substances.

This neurosis is one of adynamia. It is well known that the people mostly affected by this disease are among the brain workers. It is a disease of modern culture, rarely attacking working people or members of uncivilized nations. Highly strung neurasthenics, exposed to nerve wear and tear; these are more liable to any neurosis. Excessive users of tobacco are also more susceptible. This adynamic neurosis may be induced by influenza or any disease which devitalizes the system, excessive mental exertion, responsibility. And this seems to me to place in its proper relationship to the etiology the uric acid theory advanced so ably by Bishop, as uric acid in excess is itself quite sufficient to cause adynamia; and so is only one of the many causes of the nerve lesion.

The infectious diseases of childhood, particularly pertussis, seem to induce a predisposition. However, not everyone exposed to and probably developing such a neurosis due to such

causes, is subject to hay fever. There is an individual susceptibility which is analogous to the idiosyncrasy of certain persons to iodoform, strawberries, shell-fish, etc. And there is also a marked element of hereditary predisposition.

In examining a case of hay fever the nasal cavities will be found swollen and congested, even at times to the point of turgescence. If a probe is passed lightly over the lower part of the middle turbinal, the lower turbinal or the corresponding portion of the septum, it will be found to touch sensitive spots, the result being an attack of sneezing. Other points almost contiguous, not giving this reflex, showing the marked hyperæsthesia in the sensitive areas controlled by the nasal branch of the fifth nerve and the sphenopalatine ganglion. The same phenomena, in a less marked degree, are manifested at any time of the year in most cases of hay fever.

Dunbar, of Hamburg, Germany, by a most interesting series of exhaustive experiments has proven that the disease is not merely an imaginary neurasthenia, and that the pollen of various plants is undoubtedly the exciting cause. He has separated a toxin from the pollen and caused attacks in susceptible people by its use, showing that it is not due to the contact of the pollen itself, but to the toxalbumin contained therein. By procuring an antitoxin in the usual way, he formulated his method of treatment, of which I shall speak later.

Premonitory symptoms show the neurotic element, especially in cases of some years standing, as when a patient goes to sea to escape an attack, these symptoms, such as the itching in the roof of the mouth and eyes, may occur on the expected date and yet no sneezing follow.

The method of production of a paroxysm is as follows: A certain irritant coming in contact with the hyperæsthetic mucous membrane, in a neurasthenic susceptible person, the impression made on the terminal nerve fibrillæ is transmitted through the ganglia and returned to the vaso-motor nerves of the membrane, with a resulting vaso-motor catarrh.

The treatment naturally divides itself into preventive treatment, and the relief of attacks. As so many of the sufferers are office workers, hygiene is of the utmost importance. The necessity of exercise in the air must be insisted upon; such as golf, horseback riding, tennis. Bathing is also very important, especially cold sponge baths. Care of the diet as to simplicity; and as uric acid is so often an element in the etiology, an anti-

uric acid diet may be advisable. Salicylates should be given between attacks if uric acid is found in excess.

Careful attention to the nasal passages must be given if any success is to be expected. The treatment of all abnormalities found; the removal of polypi, adenoids, spurs, enlarged tonsils, by surgical methods, and the shrinking of hypertrophies by iodine and glycerine solution or by deep linear scarification with a sharp-edged electro-cautery knife. Local nasal treatment should be given about six weeks before the expected attack. Climatic treatment is certainly desirable; and a blessed boon to sufferers, as a stay in the White Mountains, or the Adirondacks, or at sea will prevent attacks, from the fact that pollen is absent in such regions, due to the action of wind, rain and gravity.

During attacks, railroad journeys should be avoided on account of the dust, which contains the irritating pollen more than any other media.

With homœopathic remedies I have had but indifferent success; naphtholene 1x has helped me mostly. Euphrasia, cepa, causticum, arsenicen alb. have also been of some use.

Dr. Curtis had a fluid ambrosia (ragweed), prepared by Fraser, which relieved four out of eight cases on which I tried it, giving fifteen to thirty drop doses, t. i. d. With Dunbar's pollantin, the name he gave his anti-toxin, I have not had any results, but admit I have not used it on sufficient cases to express myself. Reports vary exceedingly as to its value; Dunbar himself reports 696 cures (56 per cent.), 381 relieved (31 per cent.), 163 unimproved (13 per cent.), in a series of 1,240 cases. His later reports have shown less marked success.

Its method of use is as follows: To drop into the eye one drop of the liquid preparation, or a very minute particle of the dried pollantin, and the same quantity in each nostril every three or four hours from the beginning of an attack until relieved. He has two preparations, one for spring catarrh (ragweed pollantin) and one for the autumnal (ragweed pollantin) and advises persistency to obtain results. The cause of the lack of universal success may be in the fact that such a large variety of plants have irritating pollens, and yet the antitoxins are prepared from but two plants. I have only tried it on four cases, in none with any success.

This disease is regarded by the laity as incurable, and most

patients having tried all sorts of remedies are sceptical, and object to the cost of pollantin, feeling it is only another experiment.

Cocaine is a dangerous remedy and not to be countenanced for use by the patient. While it gives rapid relief of the turgescence in the nostrils, the secondary effect of vaso-motor paralysis usually causes an aggravation. Catarrh snuffs and hay fever cures are full of cocaine, but under the new Pure Food and Drug Laws their indiscriminate sale is decreased.

Atropia—gr. 1-150 to gr. 1-50 will generally give relief; to this may be added morph. sulph. 1-16 gr. The thorough use of adrenalin chloride or the suprarenalin solution of Armour (which latter I prefer on account of its greater stability) is of great value in relieving symptoms, both in the eyes and nostrils. I use it in its original strength—1 to 1,000; 1 to 3,000 at the weakest, with normal salt solution; though some report results when used as weak as 1 to 10,000. Adrenalin inhalant is of benefit in a vaporizer.

Richardson reports relief from the internal administration of suprarenalin extract in doses from three to five grains every three or four hours. A menthol inhaler is soothing, or better still the use in a vaporizer of

Menthol, gr. x.

Camphor, gr. iij.

Liquid albolene, ʒj.

Smoked glasses are a decided relief, and if a correction is worn have it ground in a smoked glass for constant wear, or in the violet tinted glass. Confinement in a dark room may be necessary if the eye symptoms are severe, as strong light is often the exciting cause of an attack. Bishop, in advocating his uric acid theory as to cause, gives Horsford's acid phosphates, ʒj, doses night and morning, well diluted, during attacks to clear the blood of uric acid by precipitation. This may bring on the gouty pains, if patient is susceptible, as it causes precipitation of the uric acid in the joints.

Dr. Quackenbos, of New York, the psycho-therapist, has failed to cure hay fever by hypnotic suggestion, showing rather conclusively that the condition is not purely neurasthenic.

I have purposely left until the last to advance the method of treatment which I have found of most success, both as preventive and for relief during an attack.

I wish again to recall to you the three factors necessary for the production of a paroxysm—a nervous system susceptible through general adynamia, heredity or acquired disease; a hyperæsthetic nasal mucous membrane, and the presence in the air he breathes of the pollen to which he is susceptible.

The neurosis may be removed by internal treatment; the removal of the latter element, the presence of pollen, can only be accomplished by removing the patient to a different climate temporarily; but the other element, the hyperæsthetic mucous membrane, can be altered nearly always.

Dr. Charles E. Sajous advanced many years ago the method of treating this disease by cauterization of the nasal mucous membrane in its sensitive areas, destroying the hyperæsthesia of the terminal nerve fibrillæ, without destroying tissue. Sajous uses either glacial acetic acid on a spatula or a flat looped electro-cautery. I prefer the latter for its perfect control, but have used with success, in former years, chromic acid crystals, fused on the end of a probe.

I have the patient report from three to six weeks before the expected attack; if there are any abnormalities, attention is first given to them, as before stated. Passing a probe lightly, I locate the sensitive areas, searching for them in the parts before mentioned. Then I apply cocaine, 4 per cent. solution, simply for greater ease in using instruments, not to prevent the pain, as that is not severe. The electro-cautery is then applied at a white heat, cherry heat is painful. Pass the flat surface of the electrode rapidly over the area selected; in a few minutes over another, never burning more than three or four at one sitting, and usually confining your work to one side of nose each treatment. Violent sneezing may result as a reflex symptom, particularly if these treatments are given for relief during an attack. Benzoinol is used both at the office and at home. Treatment is repeated in other sensitive areas at intervals of three days, until no more sensitive spots are found. During an attack the same treatments are used for relief, only a strong 8 per cent. solution of cocaine is used, as then the cauterization is somewhat painful on account of inflammation. I also use adrenalin here before the cocaine to reduce the swelling. There may be some discomfort following the treatment from swelling, and we may have resulting adhesions, which must be watched and torn loose if they form. The treatments are given daily, if possible, to get quick relief.

Relief is usual from first treatment and the attacks may be arrested in some patients, and decidedly modified in others.

If a patient has experienced the relief by treatment given during an attack, and that is when we are usually consulted, he rarely fails to return for preventive treatment early in the following year and immunity can usually be promised, depending on the thoroughness of the treatment.

Be careful in cauterizing to avoid the upper part of the middle turbinal, which is covered by the olfactory membrane. Objections have been made to this treatment on the score of resulting atrophy and destruction of the sense of smell. This latter is rather improved because of the improvement of the breathing space, and atrophy could only result from injudicious, deep cauterizations; as the object is not to destroy tissue, but to remove the hyperæsthesia.

I have been able to follow some of my cases since their first treatment, seven years ago, and find no recurrence in some, and absolutely no ill effects in any. Several have been compelled to report to me for two treatments at the beginning of their attack, which would end their attack for that year; and more have been reporting yearly for two or three years before the attack was expected, and had treatments without any subsequent sneezing. In two cases there was absolute failure.

To summarize the treatment, I have found of most benefit—
Treatment of all nasal abnormalities.

Adrenalin chloride.

Smoked glasses.

Cauterization of the sensitive areas in nose.

Atropia. sulph. if not relieved by the latter.

RECENT HISTOLOGICAL EXAMINATIONS OF APPENDICITIS.—In closing his article on this subject, Aschoff concludes: 1. That the demand of most surgeons to operate all diseases of the appendix is untenable, otherwise most people should be operated, and because the larger part of all these diseases heal spontaneously. 2. It must be conceded that at present our lack of diagnostic ability justifies the early operation. All the more urgent should be our endeavors to perfect our diagnosis in order that the unfavorable cases may be early recognized, especially those tending to become septic, and to save by means of early operation. 3. All appendices must be removed which do not recover after an acute attack, or which appear from recurring attacks to be predisposed to the disease; that is on account of delayed recovery and recurring acute attacks, but not on account of primary chronic appendicitis.—*Samml. klin. Vorträge*, No. 435.

INSANE WHO HAVE HELD RESPONSIBLE POSITIONS.

BY

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(Read before the American Institute of Homoeopathy, June, 1908.)

DURING the several years that I have been connected with the State hospital service, I have been impressed with the number of patients who, while still holding responsible positions, have been sent to our institution. We have had practically every business, profession and employment represented among these: Doctors, lawyers, bankers, motormen, railroad employees and laborers.

When we think that every day we are liable to place our life in the keeping of an insane railroad employee; our honor and good name in the hands of a mentally unsound lawyer; our money in the care of an incapable banker, and the lives and honor of our wives and daughters at the caprice of a sexual pervert from a foreign country, it is certainly appalling.

Upon railroads and traction companies, physical examinations are always given men who are to hold positions of stress or responsibility; but the mental condition of these people is never inquired into. If they are able to walk and talk in any way that an indulgent superior can call normal, they are left in their position until some terrible accident occurs and the nature of their disease is self-evident. Especially is this so of a faithful employee whose mental symptoms are considered due to overwork and nervousness.

In an article written by the late Dr. Allison, of the Matteawan State Hospital, which appeared in the *American Journal of Insanity*, he tells us that one in every thirty of all the insane in New York State had committed some crime for which he was only waiting to stand trial, and that one in every one hundred, made a homicidal attack or had actually committed murder.

Of the one hundred and seventy-nine cases that at the time Dr. Allison was writing had been committed to Matteawan for murder, 53 per cent. were taken from prisons, and at least 45 per cent. of these were undoubtedly insane when the murder took place, a plea of insanity had been set up but failed.

Twenty per cent. of those committed by the courts for assaults or manslaughter were found demented or had marked delusions of persecution.

One case is cited where a convict, then in the hospital, who had served four separate times in the penitentiary for assaults, was finally sent to the insane hospital, where it was found that he had been suffering from marked delusions for years.

Dr. Philip E. Knapp, writing in the *Boston Medical and Surgical Journal* for February 6, 1908, on "General Paralysis as a Menace to Public Safety," states that five out of the last fifty cases of general paralysis which he had cared for, were employed by one of the transportation companies. Four others were teamsters, and two more were stationary engineers.

During the ten years that the Gowanda State Hospital has been receiving patients, there have been committed to its care two thousand and twenty-eight people, of whom more than half have been men. Of these, we have had twenty-seven professional men, one hundred and thirteen business men, one hundred and ninety skilled employes, two hundred and thirteen farmers, three hundred and eighty laborers; no occupation one hundred and fifty. Among each of these divisions, there have been a number who have been an injury to their community and if their condition could have been recognized in time, the whole trouble could have been avoided. The following cases are in point:

G. C. is a man thirty-five years of age, who, when he was committed, had been working for the same firm for fifteen consecutive years, ever since leaving school. He was first a bookkeeper, but seeing a better chance for advancement, he started firing on a railroad in the Adirondacks which was owned by the firm employing him. He did so well that at the end of two years he was promoted to engineer, which position he held for five years previous to his commitment, giving very good satisfaction. During the last year he had been very irritable, frequently getting into fights with his fellow workmen, and had often neglected his engine and at times was dazed and uncertain. Five weeks before his admission he started out with a passenger train, which got the best of him and ran down a steep hill, barely escaping a severe wreck. On account of this he was given six months' leave of absence to get over his nervousness. He returned to his home, where he became very resistive and it was impossible to keep him in the house.

He insisted on going into the street, telling everyone of his great wealth and possessions. Finally he went to the depot and endeavored to take the engine away from the engineer of a fast express under the delusion that he was the owner of the road and was to receive a fabulous sum for taking the train to New York. Finding it impossible to control the patient, he was brought to us on January 6th of this year, with the request that we get him well in order that he might return to his duties before the expiration of his leave of absence. On examination we found the man in an advanced stage of general paralysis. He is now having frequent convulsions and the disease is advancing to a fatal issue.

The second case is very similar to the preceding, except that this man was a motorman on the street railway of Jamestown for fifteen years, giving very good satisfaction. The patient is a Swede, forty-two years of age, who contracted syphilis at the age of twenty-five, from which he entirely recovered. One year ago it was noticed that he was nervous and cross, his usual good nature having changed to an irritability which made it difficult for his fellow employes to get along with him. At home, during this period, he made several homicidal attacks on his wife. He went to a physician for his nervousness and received treatment for several months. Six weeks before his admission here, he was discharged from his position because he had recklessly run his car down several steep hills and about sharp corners, endangering the lives of all the passengers. Following this, he drifted about town, becoming more and more irritable, until finally he developed the idea that he had found a large package of railroad bonds for which he had received a million dollars reward. He annoyed a bank by demanding his money; the police were sent for, a medical examination made and it was readily recognized that he was insane. On examination, we again found a man in advanced general paralysis. When he was questioned in regard to his reckless driving, he became angry at his superintendent who had discharged him for this and said: "The old Irish fool did not know I could fly."

During the five months that the patient has been in the hospital, the disease has progressed very rapidly, and we feel that a fatal issue is only a matter of a few months.

L. H. is a man of sixty-eight years, who has always been healthy and worked as a fireman and engineer, caring for ma-

chinery in buildings. The last position he held was in a large hotel in Jamestown, where he had been employed for several years, discharging his duties very satisfactorily. He had always been temperate, quiet and not given to excitement. Nothing abnormal was noticed about him until two weeks before admission, when he commenced acting in a peculiar manner. He made gestures, talked out loud, claimed he was speaking to the spirits of dead friends whom he believed were about him, though he did not see them. He spent all his time in the house of a medium, which was entirely foreign to his normal habit. In the meantime, he ran a large boiler and dynamo, which supplied the hotel with light and heat. He finally had an outbreak when he attacked his assistant with a monkey-wrench, because the spirits had told him that his assistant was trying to get his position. As a result of this, it was realized that he was incompetent, and on examination he was committed as insane. We found that he was suffering with advanced arterio sclerosis and renal disease. During the last six months in the hospital, he has had frequent homicidal outbreaks and it has required careful attention to keep him from injuring someone. Before his admission, the patient, though violently insane for two weeks, had the lives of several hundred guests in a large hotel at his mercy.

During the late financial crisis, one seldom picked up a paper that he did not find that some bank president, cashier or employe had committed suicide; and on examination it was almost invariably found that they were short in their accounts. Many of these had been faithful employes of the bank for years, but when they had reached a more or less advanced age, and the down-hill stage of life had commenced, with arterio sclerosis and degenerative changes, their mental acuteness was somewhat blunted and their business ability impaired. We have one of these wrecks of the past year with us. He is a man forty-seven years of age, but physically and in appearance many years older. He has been employed in a bank in one of the smaller towns for the past thirty years, being always faithful; and his integrity was above reproach. He worked up through every grade until he reached that of cashier. He was always considered somewhat delicate, but had never been out of work on account of illness.

During his young manhood, he lost his wife and was then so emotional that it was feared that he might go insane. But

he readily overcame this and in three years married again, and has been very happy in his family life. Seven years ago he was promoted to the position of cashier in a bank in an adjoining town, where he did very well. Three years later a new bank was started in his old home and he was asked to be the cashier of the new institution.

One year before his admission to this hospital, it was noticed and remarked upon by his physician and friends that he did not appear quite himself, as he was forgetful and neglectful of his business. Everyone thought this was due to overwork, incident to establishing the new bank and but little attention was paid to it. At home he was much more irritable than formerly and he sat about the house wringing his hands and moaning softly to himself, paying little or no attention to his people; but whenever strangers came, he appeared better and entered slightly into conversation, just enough to pass muster. His sleep was broken and he ate poorly. Eight months before admission, he was caught in the act of throwing himself in front of a railroad train, and it was only through the quick wit of his wife that he was saved.

Following this, whenever at home, he often begged his wife to blow his brains out. He commenced drinking and staying out late nights, which was contrary to his habits, but he kept up his regular work at the bank. His wife finally became frightened, had him examined, and it was found that he was insane. The bank examiner, who then took charge of the affairs, then discovered that practically all the money of the bank was in the hands of an insolvent manufacturing concern, at the head of which was a crowd of unscrupulous men. This accounted for his despondency and attempted suicide. On admission here, we found a man who was very forgetful, being able to remember but little of what occurred during the previous year. In reading a book, he was unable to recall the title. He was very emotional, rocking back and forth crying almost constantly. The physical examination showed advanced arterio sclerosis and he complained of all manner of ill feelings in his head. The heart sounds were weak and intermittent.

Since being here he has gained in health, but his memory shows no improvement. Although he has an indictment hanging over him, of which he is perfectly aware, he is to all appearances indifferent to his past and future.

The last case that I will cite (F. M. I.) is that of a lawyer who was very prominent in Buffalo some years ago. He made a specialty of caring for estates. He was considered upright and honest in every way. He had reached the place where he could take frequent and extended vacations, and the only abnormality remarked upon by his friends, was that for several weeks at a time he could not be found; but his work was carried on by his clerks without any hitch. Finally he overdrew his account at his bank, which he made good by giving notes. When these notes had been renewed several times and no effort was made to settle them, an investigation was made and it was found that practically everything, approximating two hundred thousand dollars, had been swallowed up, and no one, not even the patient, knew where it had gone. These frequent and extended vacations had been alcoholic attacks where amnesia was the most prominent symptom, and he could give no account of his expenditures. At the examination, it was found much to the surprise of everyone that he was a hopeless alcoholic dement. Recognizing his failing, he had shielded himself behind faithful clerks.

Both these latter cases show how far mentally wrong men may be, but yet be able to always put the best foot forward, and to the casual observer not be noticed as incompetent. A cashier was left eight months after attempting suicide to run a national bank with practically no supervision; the other, a lawyer who was responsible for six estates of widows and orphans, was able to continue for several years in charge of these large amounts of money without his true mental condition being suspected.

These few cases that I have presented have been selected rather at random, and all are at present in our institution, and with one exception, have been admitted during the past six months.

If time permitted, I could readily cite several hundred cases in our institution that could have been protected from themselves, and the community could have been better guarded, if the family physician had recognized the gravity of the patient's condition in time. When we see a whole family left destitute through an insane father dissipating an estate, or a guardian being unfaithful to his trust, or a railroad employe endangering the lives of thousands of his fellow beings through an easily recognizable mental incapacity, it is time that we as neurolo-

gists and psychiatrists, went out among our brethren of general practice and preached the gospel of the necessity of an early recognition of mental and nervous diseases that are liable to cause death and destruction to their people.

DEMENTIA PRAECOX.

BY

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WHAT is known as dementia praecox is a disease of the entire organism, characterized by a state of feeble-mindedness, that may or may not be permanent. It has been described as an organic process that has to do with the inner life of the individual and which accompanies his development. In its numerous manifestations, this early weakening of mental power ranges from simple stupidity or dullness to profound stupor, with marked muscular rigidity. There exists in all forms of the disease a complete paralysis of the will with a consequent loss of power for any kind of intellectual effort. The unnatural indifference that results may be varied by outbursts of anger and periods of excitement, though rarely by spontaneous activities that are useful. Violence or excitement seldom lasts more than a few days at the most, and is not a distinguishing feature of this form of mental trouble. Appearances are often against young men and young women suffering from dementia praecox, for they may seem dazed and altogether stupid even when retaining a fair degree of understanding and a very good memory. In many instances they know where they are, the day of the week, month and year, and easily recall what happened in childhood, as well as events that take place from day to day, and later surprise their friends by minute accounts of various incidents that seemed at the time to make no impression upon their slow and dull powers of comprehension.

Though weakness of mind is the essential feature of dementia praecox, it is not general and complete, but is confined in the beginning to certain qualities like judgment, imagination, concentration and tenacity of purpose. The power of attention is always lessened, with the result that the

association of ideas is carried on so slowly that speech may become vague and disconnected.

External impressions have undue weight, owing to the effect of disease upon the force and activity of the will. A state of meaningless emotion is often an early symptom. Tears and laughter come without adequate cause, or for no cause at all. The patients do not know why they laugh. They find it equally impossible to give any reason for their characteristic habit of doing silly things in a fantastic manner, such as repeating over and over again the same peculiar movements, the same words or syllables regardless of sense, imitating the actions of those about them, remaining for a long time in the same attitude, grimacing and keeping certain muscles of the face in a state of fixed contortion. Nor can they explain their sudden impulses to anger, their fierce retaliation toward others for some accidental irritation, nor their desire to injure and destroy inanimate objects. Even stranger than the foregoing peculiarities, more incomprehensible than the silly mannerisms and foolish laughter is the condition known as negativism, or psychic interference, a perverse frame of mind that prevents those suffering from dementia praecox from doing what they really want to do, from putting into execution some plan that they really wish to see carried out. Negativism has been described as the blocking off of some natural impulse by a contrary reaction of the mind, an involuntary impulse to do the exact opposite of what is demanded or required by others or even desired by the patients themselves. In the act of stretching out the hand, walking across the floor, making a want known, performing some little duty, such as dressing or eating, they seem suddenly fixed into a state of more or less rigidity, and nothing is brought to pass. These contrary, unnatural and antagonistic impulses account in a great measure for apparent stupidity and for eccentric conduct.

"An order given is not executed. Pricking, even when deep, produces no movement; not because it is not felt, but because voluntary action is annihilated. Interesting forms of negativism are mutism and refusal of food." And it is this same negativism or psychic interference that brings about increased muscular tension, a hypertonicity of the muscles that ranges from mere awkwardness of movement to extreme rigidity of the body. In three-fifths of all the cases that come under medical observation, this form of mental enfeeblement appears

before the age of twenty-five. Occasionally attacks resembling it in every particular come on for the first time during middle life and among the aged. Such mental disorders are regarded as states of delayed dementia praecox. Mild cases in early youth are often unrecognized, passing for indolence, ill-humor, simple neglect of duty, or general disobedience. They are of far more frequent occurrence than is generally supposed, recovery taking place without apparent defect. For convenience, the diseases belonging to the dementia praecox group are separated into three divisions. The first includes conditions of hebephrenia. The second, those of what is known as catatonia, and the third comprises the paranoid forms of dementia praecox. Some authorities look upon catatonia as the classic type of the disease, the others being but modifications or deviations from this extreme form. Hebephrenia, which literally means "the mental aberration or madness of youth," is the mild type of dementia praecox that is associated with the onset of puberty and adolescence. It develops gradually, often with headaches, insomnia, loss of appetite and general weakness as its earliest symptoms, together with a change in character that is noticed by friends and a state of general apathy and indifference. Ordinary affection, the usual interests of youth, intelligence or even brilliancy of intellect are now replaced by listlessness and perhaps stupidity. Amusements are apparently as wearisome as work. The patient is inert, silly, disinclined to move, and finally does nothing. New ideas are not acquired, with the result that as time passes general ideas seem more and more limited in number and force. The word catatonia, used to designate the most striking form of dementia praecox, is Greek in origin and signifies "tension." The mental and bodily condition to which the term applies when it develops regularly is first characterized by melancholia, then by mania, and later, if not arrested through treatment and care, by dementia and physical decay. It is in catatonia that the counter impulses, preventing normal activities are most marked. The chief premonitory symptoms of catatonia are a change in disposition, inability to do any work and sleeplessness. There may be mental depression, later associated with delusions and hallucinations that are not infrequently of a religious nature. In catatonia the general muscular tension is often so great that it results in some fixed position of the body or parts of it, positions that may be maintained

for hours at a time or even for days, weeks and sometimes for months. All sorts of positions may be assumed, those that in health would prove very uncomfortable or even impossible. Perhaps the most frequent of all is where the patient lies upon the back with limbs stretched out, either with the eyes always closed, or always open and staring into distance, the face without expression and the slightly closed lips somewhat protruding. The hands are most often clenched, with the nails pressed into the palms. Other patients stand motionless in some constrained attitude, or sit doubled up on the floor, or lie in bed rolled up like a ball. They may turn away when spoken to, or hide the head under the bedclothes. When the muscular tension is less profound, the limbs may be put into any position chosen by the physician or nurse, and remain thus fixed regardless of what, in health, would cause great discomfort. In all cases muscular tension is not alike all over the body, but is greater in the hands, arms and lower limbs. The gait is often influenced by this condition, some patients being unable to move at all, falling rigidly to the floor when raised to their feet; others walk stiffly on tip toe, or on the other side of the foot, and with unbent knees, with the body bent forward or backward. The movements are slow and constrained. Sometimes the counter impulses may be suddenly overcome and the movements become rapid. Every grade of stiffness and awkwardness may be observed from the slightest to the most pronounced. When excitement comes on, it usually makes its appearance suddenly. The inert patient may suddenly leap from the bed, tear clothing, rush about the room, overturn furniture and shout and sing.

The paranoid forms of dementia praecox may develop and run their course in one or two different ways. In the first, some slight degree of bodily restlessness appears, together with many constantly changing and incoherent delusions and hallucinations. Consciousness is not impaired for a long time, but the general mental weakening takes place rapidly and without remission. Distinct signs of mental failure are apparent in a few months, and it is said to be well marked in about two years. In the beginning there are no definite physical symptoms beyond loss of weight, insomnia and interference with general nutrition, and the usual mode of onset in this disease. The second group of the paranoid form of dementia praecox is characterized by hallucinations and extravagant de-

lusions of grandeur and of persecution. These are present for a number of years, finally disappearing and leaving the patient in a state of moderate feebleness of mind. In this second group there is a slow, gradual weakening of mental power. The first change, as in all forms of dementia praecox, is in the disposition. Then delusions of persecution appear, followed by delusions of grandeur. As these fade away, the mind shows much weakness. Though it is difficult for persons suffering from the paranoid form of early dementia to adapt themselves to external conditions, even when the acute stage is passed, it is still possible for them to perform useful work under proper guidance. The early or premonitory symptoms of dementia praecox are in no way peculiar to the disease itself. They are, as earlier stated, for the most part common to all conditions of faulty metabolism and malnutrition. There is a feeling of weakness, disturbed sleep or actual insomnia, want of appetite, indigestion, flatulence, and sometimes vomiting. Later a tendency toward excessive eating may develop. The heart's action is often weak and irregular. It may be retarded, and it is sometimes more rapid than in health. The temperature may be sub-normal. There is a tendency to lose in weight during the early stages of the disease. Later the contrary condition may prevail, the patient becoming stout, and occasionally very fat or even unwieldy. While physical disorders are very common in dementia praecox, they are seen most frequently in the form known as catatonia. No one of them appears with any marked degree of constancy, nor is there a single physical sign that is confined solely to this particular morbid process. An important characteristic of the disease is the variability of its symptoms. Whatever form it takes any case of dementia praecox that has recently developed may suggest hysteria, owing to its similar manifestations, such as mental depression, sudden outbursts of excitement, the oppression in the throat, the sensation of a nail driven into the head, fainting fits, epileptiform seizures, and even convulsions similar to classic hysterical attacks. Difficulties of locomotion and disorders of movement are not uncommon, such as a transient paralysis of one side of the body or of an arm or leg. Other conditions that may be noted in some cases are a general enlargement of the glands, excessive perspiration, a bluish tint of the surface of the body, and a tendency for a mark drawn on the skin with the nail or pencil to remain as a white or red line. The sensibility of the

skin may be disordered. Areas of tenderness or of anæsthesia are sometimes present. The pupils may be dilated, especially when stupor or excitement exists. They are occasionally unequal. In women, menstruation nearly always ceases, or is absent for a time. Tendon reflexes are usually increased, and there is also muscular irritability. There may be swelling of the hands and feet and other manifestations of impaired circulation and defective metabolism. Of all these varying physical symptoms, the most significant are the increased muscular tension, the diminished sensibility to pain, and the various pupillary phenomena. As far as conduct goes, the chief characteristic sign of dementia praecox are foolish laughter and silly mannerisms.

A word of warning recently uttered by an expert in regard to diagnosis deserves special emphasis and the highest commendation. It calls attention to the fact that it is always most unwise and very unscientific to classify all forms of the mental diseases of youth that are characterized by apathy and foolishness as dementia praecox, and to imply the deterioration with the ultimate extinction of mind is the probable outcome of all such unfortunate conditions. Kraepelin himself states that in 17 per cent. of the cases of true dementia praecox the condition of dementia never sets in, and that in a large number of others there is a long interval, during which time the patient enjoys perfect health and is a useful member of the home and of society. Persons who are valuable to themselves, and others for many years, and perhaps during the whole of life following an early attack of mental trouble, from a practical point of view, cannot be considered to be suffering from chronic mental disease. Many forms of pubescent adolescent, masturbatic insanity, and psychosis of exhaustion are entirely recovered from, and are quite distinct from dementia praecox, in the true sense of the term. In the main they have no place in this particular group. Experience and expert skill are essential in the complete differentiation of all these conditions. The diagnosis of dementia praecox is clearly recognizable at an early stage. In other words, dementia praecox should be an established fact before any definite diagnosis is made by the general practitioner, the consultant, or any one to whose care the patient is confided. Among the young the necessity of suspending judgment is at once apparent when their astonishing reserve of vitality and recuperative powers

are taken into consideration. What might appear a serious mental handicap in middle life or during advanced age, is often merely an incident of youth that is destined to fade away and leave no traces. Diseases with which dementia praecox may be confounded at some of its stages are mania, simple melancholia, hysteria, certain forms of confusional insanity, an early phase of manic-depressive insanity, and true paranoia. In none of the foregoing conditions is there the same muscular tension as in dementia praecox, nor the same tendency to a rather rapid weakening of the mind. Neither is there in any of the states just mentioned the same degree of "negativism" or psychic interference with normal thought. Pathological indifference or emotional deterioration also exists in manic-depressive diseases; but in manic-depressive insanity the patients are not up to little pranks and do not laugh at nothing. More than this, in their case the mind is not so definitely impaired. In dementia praecox, its weakening state is one of the most noticeable features of the disease, even in cases that make what are known as good recoveries later. The alleged causes for the development of dementia praecox are as varied as in other forms of mental disease. Among them are excessive study, and too close confinement in the school-room, infectious fevers, such as typhoid, scarlet fever and malaria, together with sexual excesses of all kinds, indulgence in alcohol, poisoning by illuminating gas and carbonic oxide, together with fright, morbid emotions, shock, disappointment and grief. Lack of physical development of the skull, brain and other organs seem to favor the appearance of this disease. In persons already deficient, such as alcoholics, syphilitics, idiots and imbeciles, dementia praecox may develop without other causes than existing mental and physical inferiority. Whether dementia praecox is an accidental or a constitutional process is as yet unknown. There is a general trend of opinion among some authorities that it is primarily an infectious process, due to abnormally altered secretions along the genital tract. Those who hold to this idea give as possible proofs the fact that it appears during the evolution of complete individual sexual life, and that it often follows childbirth. Though denying that it is in any sense a degenerative process, others affirm the chief factor in its production is some form of defective heredity.

How far preventive measures can mitigate the process of

the disease or secure immunity from it is as yet unknown. When a tendency to early dementia is noticed, when there are periods of exhaustion and a change in character and disposition, a new environment that favors a healthy normal life, together with judicious training, avoidance of all strain and proper care of the physical health, gives the best chance of warding off this abnormal and destructive condition. Headache, insomnia, loss of appetite, irritability, suspicion, and a change in character in any young person are all danger signals well worth regarding with the utmost attention if catastrophes are to be averted. They may not always be the forerunners of early mental enfeeblement, but they do denote an unstable nervous system and a strong possibility of some form of future nervous disease unless the most natural conditions of living are secured. An environment that makes exercise in the open air possible with companions of suitable age, together with judicious tasks and training, long hours of sleep and an abundance of good plain fare, is the one to seek for dispirited and easily exhausted boys and girls. When dementia praecox has definitely declared itself, the best possible plan is to place the person thus handicapped in some institution where constant medical supervision is possible. The general condition and special symptoms can be carefully studied in a well ordered institution and the degree of liberty compatible with the patient's highest good in this way can be decided upon. Light work of any kind, when the patients are capable of doing it, is an excellent antidote for many of their morbid impulses. Well directed efforts that accomplish a definite object are in this way actual curative agents. Getting the patient to read aloud, when it can be done, will aid in breaking up the habit of indefinitely repeating the same phrases or verses, perhaps do away for a time with the tiresome string of syllables that merely sound alike and have no meaning. Sustained physical exercise seems to lessen the tendency to impulsive acts, to negativism and fixed attitudes. Dementia praecox, like many other forms of mental and nervous diseases in the young, is in the main a disease of lowered vitality.

The proper nourishment of the body is a matter requiring the attention of an experienced physician. Appetizing food of the best quality that is carefully prepared and properly served is an important element of cure. Usually a full nutritious diet varied each day is of great value. Exceptionally, some

special form of feeding may be required for a time, as an exclusive milk diet, or one in which flesh foods have no part. Exceptionally beef peptonoids, extract of beef, defibrinated meats, fresh meat juice, entire wheat flour, gruel, and prepared patent foods may prove valuable adjuncts when ordinary diet fails to accomplish its usual purpose. Vegetables, fruit, milk, butter and eggs, without dessert or made dishes, give the best results in certain instances. Sometimes fruit fails to agree with the patient, and has to be temporarily discarded. Here, as in all conditions in which the entire organism is at fault, the peculiarities of the individual must be considered. Not alone what the patient eats, but what he has the power to assimilate and transform into good blood, is the correct diet for him, one that will aid in overcoming special abnormal tendencies and is carrying on the good work of building up new cells of greater resistive power.

The treatment of all forms of *dementia praecox* is of necessity both general and symptomatic, as in other states where the entire organism suffers from any marked and abnormal disease process. Special attention must be given to nutrition and elimination, to the complete activity of all the functions of the body. While the disease may or may not be due to auto-intoxication, treatment is most successful when the patient is placed under conditions best adapted to overcome the influences of constantly active morbid products, that act as poisons to the entire organism. Plenty of fresh air, peace of mind, and the absence of fatigue, and of all bodily strain, offer the most hopeful chances of overcoming unfavorable tendencies.

In the selection of remedies, whether the state of mental aberration is characterized by excitement or depression or negativism, the careful study of the case and use of the indicated remedy in accordance with the law of similars gives the best results.

THE TREATMENT OF SOME OF THE MORE COMMON SYMPTOMS OF PULMONARY TUBERCULOSIS.

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THE object of the modern treatment of pulmonary tuberculosis is to so improve the nutritive powers of the infected individual that the body will be able to retard the activities of and to destroy the tubercle bacilli. In order that this result may be accomplished there are certain fundamental therapeutic principles that must always be adhered to. The old method of treating pulmonary tuberculosis by attempting to suppress certain prominent symptoms of the disease by the administration of large doses of opium, coal tar products, etc., has been so utterly abandoned by every therapist who has had any extensive experience with these cases, that I am surprised to find homœopathic physicians occasionally falling in the very pitfalls from which our allopathic brethren are trying so hard to escape. Too much emphasis, let me repeat, cannot be laid upon the importance of adhering as closely as possible to those therapeutic procedures that tend to stimulate the protective powers of the human organism and thus render the tissues of the infected individual an unsuitable culture medium for the tubercle bacilli, and we should be very slow in departing from this course merely for the purpose of suppressing a symptom or group of symptoms. We all recognize, however, that in the treatment of tuberculosis it often happens that a certain symptom will become of paramount or even of vital importance, and unless special therapeutic measures are instituted for its control the result will be disastrous to the patient.

Time does not permit me to discuss the therapeutic management of all the symptoms and complications of this protean disease, so that I shall confine my remarks to those that are most commonly met with in medical practice, namely:

1. Debility and loss of weight.
2. Digestive disorders.
3. Cough.
4. Hæmoptysis.

5. Fever.
6. Night sweats.
7. Diarrhoea.

1. *Debility and Loss of Weight.*—One or both of these conditions are invariably met with in pulmonary tuberculosis and very frequently are among its earliest manifestations. They are due to the action of the toxins, generated by the infecting organisms upon the metabolic functions of the body. Their treatment may be conveniently considered together.

The most effective method of combating the debility and malnutrition of phthisis is life in the open air. When these patients are kept in the open air all or a large part of the twenty-four hours, we soon find an increase in the ability to assimilate food, an improvement in the anemia, and under favorable conditions, an increase in weight which may be very rapid. Next in importance to fresh air is the selection of a proper diet. Inasmuch as I have discussed the subject of diet in detail in a recent article,* I shall at present simply state that the diet should be as abundant as the patient can comfortably digest, and should contain a large proportion of proteids, fats and fresh fruits and vegetables. Three meals and three lunches should be given daily.

Next to life in the open air and a proper diet, in the average case rest is the most valuable means of overcoming the debility and loss of weight. I make it a rule to begin the treatment of all active cases of phthisis by a month's rest in bed or on a couch. In chronic and very mild cases such complete rest is not so essential, but the danger of overexertion, especially in the early part of the treatment, must be carefully guarded against. In discussing the treatment of fever I will consider the indications and contraindications for rest in detail.

If the measures indicated above are properly carried out, the use of any special remedy for overcoming the debility and loss of weight will rarely be necessary. The homœopathic method of selecting a remedy for the totality of symptoms presented by the individual case is the most scientific and satisfactory way of employing drugs in the treatment of phthisis. There are a few cases, however, where physiological medication is rendered advisable by the onset of symptoms that are likely to prove rapidly fatal or by the lack of improvement after the

*The Modern Treatment of Pulmonary Tuberculosis. *THE HAHNEMANNIAN MONTHLY*, January, 1908.

careful and persistent use of homœopathic remedies. Not that it is at all certain that physiological medication will be effective in those cases where homœopathic remedies have failed, but because the patient is entitled to every possible aid that medical science affords.

I shall not attempt to give detailed indications for all the remedies that may be of assistance in overcoming the debility and malnutrition in phthisis. In my experience I find the most generally useful are: *Ars. iod.*, 2x; *nux vom.*, 2x; *strych. phos.*, 3x; *china*; *ferr. iod.*, 2x; *iodine*, 3x.

Cod liver oil, which has been the mainstay of the old school for many years, can hardly be considered a remedy at all in the sense in which we usually employ the term. It is primarily a food and has no advantage over the more palatable oils and fats, such as olive oil, butter, etc. In fact on account of its tendency to nauseate the patient and destroy the appetite, it frequently does more harm than good. Its place in the therapy of phthisis is very limited. In the form of an inunction it is often beneficial in children, but Latham attributes its therapeutic value, when used in this manner, as being largely due to the stimulating effect of the massage. *Nux vomica* and its alkaloid, *strychnia*, are very useful drugs in cases where the appetite is poor and an atonic condition of the stomach exists. Its best effect on digestion is obtained by giving ten or fifteen drops of the tincture in water fifteen minutes before meals, three times a day. In some cases the sulphate of *strychnia* seems to work better. I first try giving 1-200 gr. three times a day before meals. If this fails I increase the dose to 1-100 or 1-50 gr. Quinine in doses of two grains three times a day is sometimes valuable in improving the appetite and toning up the system. Iron in the form of *Blaud's mass* may be given alone or combined with the quinine in some cases, where the anemia is marked. Unfortunately, however, iron does not produce the brilliant results in the anemia of phthisis that it does in ordinary chlorosis. It should not be given where there is a tendency to gastric catarrh, constipation or pulmonary hæmorrhage. Arsenic is a remedy which physicians of all schools admit to be very valuable in the malnutrition of phthisis, and some even go so far as to claim that it is a specific. It is by no means a specific and probably produces its good results by its profound action on nutrition. Physiologically it is employed in the form of *Fowler solution*, three to five drops in an ounce

of water after meals three times a day. Personally, I have had much better results from the use of arsenic in smaller doses on the homœopathic indication. Many excellent observers have reported good results from the use of arsenic hypodermically in the form of one-fourth grain of sodium cacodylate two or three times a day.

The hypophosphites, the glycerophosphites and iodine in various forms have been widely employed for their tonic effects. While valuable in selected cases they have no specific curative action.

2. *Digestive Disorders*.—Almost every case of pulmonary tuberculosis presents some form of digestive disturbance. This most commonly manifests itself in the form of anorexia, nausea and vomiting and distention by gas. As the stomach plays such an important part in the cure of phthisis, any disturbance of its function should receive immediate and careful attention.

In every case of gastric disturbance or loss of appetite, the mouth and teeth should receive careful attention. If the tongue is heavily coated in the morning the mouth should be washed out with a 1 to 3 solution of hydrogen peroxide in water, followed by a mouth wash of listerine or the following:

R Alcohol,
Glycerine,
Water, aa fʒi;
Essence peppermint, gtts. iii.

During the remainder of the day the patient should clean the mouth with listerine or the alcohol and glycerine wash above mentioned after each meal.

For loss of appetite fresh air is the best tonic. In many instances a change of diet may be necessary. This is especially true when the patient has been taking a large quantity of milk and eggs for several weeks or months, as this not uncommonly causes dilatation of the stomach. We must always be on the watch for this condition when a patient is on a forced diet. The indications of its onset are coated tongue, loss of appetite, nausea and vomiting, and enlargement of the area of gastric tympany on percussion. It should be treated by the immediate withdrawal of liquid food and the substitution of a concentrated dry diet. Solid food should be resumed gradually after three or four weeks, but in a smaller quantity than before the dilatation occurred. The addition of fresh fruits or fruit juices is often an important aid to the appetite and digestion. Pine-

apple juice, orange juice or grape juice are all acceptable. A small quantity of wine or champagne taken at meals sometimes produces the desired effect.

Nausea and vomiting frequently result from the same causes that impair the appetite, and the treatment above outlined will apply to both conditions. For the distressing cough and vomiting following the administration of food, some form of counter-irritation over the epigastrium, such as a small blister or painting the skin with tincture of iodine may prove effective. If this fails we can usually control it by the use of a symptomatically indicated remedy such as ipecac, *antin. crudum*, *nux vomica* or creasote.

Sometimes when other measures fail we will get good results by administering 20 grains of subgallate of bismuth in a glass of soda or Vichy water. As a last resort in obstinate cases it is necessary to pass the stomach tube and wash the stomach out with a 1 per cent. solution of bicarbonate of soda and pour in through the tube the following mixture:

Milk, one pint; one egg, and three ounces of finely powdered meat. This may have to be repeated three times a day.

Distention can usually be relieved by a properly selected diet, eliminating sugar and sweets as far as possible and by the selection of the homœopathic remedy.

Of the remedies for the gastric disturbances of phthisis, I believe *nux vomica* is the most important. Often the second decimal trituration is very efficient. In other cases with marked anorexia, the best results are obtained by giving the tincture as mentioned previously in this paper. *Hydrastis*, either in potency or in drop doses of the tincture, is also valuable. *Arsenic*, *china*, *creasote* and *arg. nitricum* are often of service.

3. *Cough*.—To the mind of the average patient this is the most important symptom of phthisis and he is easily persuaded into the belief that any medicine that ameliorates his cough is doing him a great deal of good. Nothing could be further from the truth, and I am satisfied that more persons have been lured to their death by means of the cough soothing opium containing mixtures that are so widely exploited by the manufacturers of "patent medicines" than by any other single agency. The cough of a consumptive is rarely of any special prognostic value and in some cases assists rather than retards the cure. It is a symptom which should always be carefully studied in relation to its cause before we attempt to prescribe

for it and opium and its derivatives should be the last, rather than the first remedy to be thought of.

As I stated above, it is important to seek for the cause of the cough before attempting to treat it. In a large number of cases the cough arises from conditions entirely outside of the tuberculous process itself. Latham gives the following classification of the causes of cough in tuberculous patients which is useful for clinical purposes. (1) Reflex irritation, especially from sources other than the air passages, without any need for expectoration; (2) the necessity for removing accumulated secretion; (3) causes other than, though often dependent upon, the original disease.

(1) *Reflex Coughs*.—As examples of this form of cough I may mention exposure to sudden changes of temperature, such as going from a warm room into the cold air or getting into bed between cold sheets; exertion from walking too fast or climbing stairs too rapidly; pleuritic irritation, which not infrequently is the cause of a dry persistent cough; cough following the taking of food due either to the irritation of the pharynx or to reflex irritation of the vagus nerve.

The removal of the cause as far as possible naturally suggests itself as the best method of controlling these various forms of cough. Thus sudden changes of temperature should be guarded against. Very frequently distressing night coughs will be markedly relieved by giving the patient a glass of warm milk and having the sheets warmed before he retires to bed. The patient should be warned against overexertion where this factor seems to act unfavorably. The dry, hacking pleuritic cough can usually be promptly relieved by applying adhesive straps to the affected side, where the irritation is in the lateral or basal regions. If the pleurisy is apical, counter-irritation by means of tincture of iodine or small blister is often effectual. Where the cough is caused by the taking of food, cleansing of the throat with a mild antiseptic wash prior to eating or the administration of the subgallate of bismuth in soda or Vichy water a short time before eating is often helpful. It goes without saying that only bland and unirritating food should be administered in such cases.

(2) *Coughs dependent upon the presence of accumulated secretions*.—The ordinary examples of coughs of this character are the morning cough resulting from the accumulation

of sputum during the night or, in the later stage, the cough brought on by efforts to empty cavities in the lungs. This latter form is especially likely to occur when the patient lies in certain positions. The important point to remember about coughs due to the presence of secretions, is that they are beneficial to the patient and should never be checked by sedatives. If weakening to the patient a little mild stimulant, such as a teaspoonful of whiskey in hot milk or thirty drops of aromatic spirits of ammonia in water may be given.

The most useful remedies for this form of cough are antim. iod., hepar sulph., stannum and phos. Where the sputum is tenacious and offensive, the use of the carbonate of creasote in doses of fifteen drops t. i. d. is decidedly useful in rendering expectoration less difficult and in inhibiting bacterial decomposition in the bronchi.

(3) *Coughs from causes other than, though dependent upon, the original disease.*—The most important conditions giving rise to this type of cough are chronic catarrh of the pharynx, laryngitis and bronchitis. Chronic catarrh of the pharynx is by far the most common cause of cough in the earlier stages of tuberculosis, and proper attention to the throat will render the administration of anodynes entirely unnecessary in many cases. Where the throat is filled with tough mucous, the use of an alkaline spray or gargle three times a day, followed by the application of the following solution once daily by the nurse or physician is beneficial:

℞ Phenal, m, v;
Iodine, gr. x;
Pot. iodide, gr. xx;
Glycerine, fʒi. M.

Sig.—Paint on the pharynx once daily.

Where the throat is dry and glazed, I employ the alkaline spray or gargle and have the patient dissolve a marshmallow or slippery elm lozenge in the mouth. In severe cases of this type, the use of a codeine and menthol lozenge for a time is advisable.

Cough resulting from bronchitis is best treated by means of inhalations. Yeo's zinc respirator is a cheap and effective means of employing this method. The substance to be inhaled is placed on the respirator, which is worn by the patient from

one to three hours, three times a day. The most efficient combination for this purpose in my observation is the following:

℞ Beechwood creasote,
Oil of eucalyptus,
Chloroform,
Alcohol, aa ℥i.

Sig.—Use fifteen drops every fifteen minutes for one hour three times a day.

In some instances where the mucous is very tenacious, the inhalation of steam from a pint of boiling water to which a drachm of comp. tincture of benzoin has been added is very valuable. This should be employed three or four times daily.

Remedies useful in this type of cough are aconite, bryonia, ferr. phos., hepar, sulph., kali bich., phos., drosera, stannum, sang., rumex. Palliatives may be necessary where the cough is weakening to the patient, causes continued loss of sleep or brings on attacks of hæmoptysis. Codeine in doses of one-quarter to one-half grain every three or four hours, in the preferable palliative. Heroin, 1-16 or 1-12 grain and dionin, $\frac{1}{4}$ grain are also useful. The best results from palliatives are obtained by changing from one to the other occasionally and discontinuing their use as soon as possible.

In closing my remarks on the cough of phthisis, let me say that, speaking generally, fresh air is by far the most effective single agent in relieving this symptom. Many persons lose their cough entirely after a few weeks' treatment in the fresh air, and the percentage of cases where the cough cannot be satisfactorily controlled by the combined action of fresh air and the indicated homœopathic remedy is very small indeed. Where we cannot treat the patient under ideal conditions the adjuvant measures mentioned above will have to be more frequently employed. The two points I wish to impress upon your mind are the uselessness, nay, even the harmfulness of administering opiates to every tuberculous patient with a cough and the supreme value of fresh air in controlling or ameliorating this symptom.

4. *Hæmoptysis*.—This symptom constitutes one of the most alarming and one of the most rapidly fatal complications that we meet with in pulmonary tuberculosis. Intelligent treatment depends upon our recognizing the cause of the hæmorrhage with which we are dealing. There are two forms of hæmor-

rhage met with in phthisis: (a) Hæmorrhage due to congestion or hyperemia, and (b) hæmorrhage due to rupture of a large vessel into a cavity.

(a) *Hæmorrhage as the result of congestion or hyperemia* may occur either in the early or late stages of the disease. The amount of blood lost is usually small and the prognosis under proper treatment almost invariably good. If the sputum is simply blood-tinged, it is only necessary to keep the patient from overexertion for a few days. If the amount of blood is larger, the patient should be put to bed and kept at absolute rest. He should not be allowed to speak except in a whisper and percussion of the chest should be carefully avoided. An ice bag should be applied to the chest if we are able to determine the side affected. The diet should be liquid and the quantity moderate. Whiskey or coffee and tea should be avoided unless symptoms of collapse are present. The most efficient drug for controlling hæmorrhages of this type is amyl nitrate, three or four drops by inhalation. This remedy has received the most thorough trial during the recent years and in the congestive form of hæmorrhage acts almost as a specific. Following the amyl nitrate we should administer one minim of glonoine every half to one hour until the hæmorrhage is entirely controlled. It is usually my custom, in addition, to place ten drops of aconite 1x in half a glass of water and give one teaspoonful every fifteen minutes. This remedy controls the anxiety and restlessness usually met with in these cases and probably influences the hæmorrhage itself favorably. If the hæmorrhage is accompanied by constant coughing and the patient is highly excited, we should inject at once $\frac{1}{4}$ gr. of morphine. In persistent small hæmorrhages the use of glonoine and a restricted diet is advisable. Calcium lactate, gr. xx, t. i. d. is also useful.

Aside from aconite, other valuable homœopathic remedies are: Hamamelis, ferr. phos., geranium, ipecac, hydrastinine hydrochlorate and erigeron.

(b) *Hæmorrhage into a cavity due to rupture of a large vessel.*—This form of hæmorrhage occurs only in the advanced stages of phthisis. Hæmorrhages of this character are frequently fatal in spite of all our therapeutic efforts. Absolute rest, preferably in a semi-recumbent position, is essential. If the source of the hæmorrhage can be located, the patient should be placed on the affected side to prevent the blood from flowing

into the opposite lung. No food should be given for several hours, unless the patient is in a state of collapse, when a mild stimulant will be advisable. The only drug is physiological doses that is of any value in these cases is morphine and this must be employed with extreme caution in large hæmorrhages, as its effect in diminishing the sensibility of the bronchial mucous membrane may result in the blood accumulating in the lungs and the patient will be asphyxiated by his own blood. If its use seems advisable, $\frac{1}{4}$ gr. should be given hypodermically. If the patient survives the attack he should be kept at absolute rest for one week after all signs of the hæmorrhage have subsided.

Blackwood recommends millefolium as being indicated homœopathically in many cases of pulmonary hæmorrhage with cavity formation.

6. *Fever*.—Rest in the open air is by far the most effective way of reducing the fever in phthisis. In fact, as long as patients with a febrile temperature persist in walking about or in engaging in his usual occupation, a reduction of the fever is almost impossible. Every patient whose maximum daily temperature is 100° F. or over should be kept in bed, in the open air, if possible, and not allowed to get up until his maximum daily temperature does not exceed 99° F. He should then very cautiously be allowed to sit up daily for gradually increasing periods if his temperature is not elevated. It is important to start some mild form of exercise as soon as possible, but this must never be sufficient to cause an elevation of temperature above 99° F. From four to eight weeks are required to reduce the temperature to normal in cases of moderate severity. As regards diet, the patient should take as much solid food as possible in addition to the regular quantity of milk and eggs. As an adjuvant the patient should be sponged daily with water at about 70° F. Acetanalid, phenacetin and other coal tar products are always useless and frequently harmful. I have seen some cases in which quinine in doses of two grains three times a day was remarkably efficient in reducing the temperature. There are several homœopathic remedies of value in this condition. The ones I have most generally employed are aconite, bryonia, gelsemium, baptisia, china, echinacea and arsenicum.

7. *Night Sweats*.—This annoying symptom is due to the toxemia or to extreme weakness. It usually disappears under

the open air treatment without the use of drugs. Patients who are subject to night sweats should wear a woolen night robe. If weakness is the cause of the sweating, the administration of two or three teaspoonfuls of whiskey in a glass of hot milk at bedtime will usually control the condition. In other cases sponging of the body with one ounce of vinegar in a pint of water is effective. Among the homœopathic remedies of value are *jaborandi*, *tabacum* and *phos. acid.*

The most effective physiological remedy is atropine in doses of 1-100 or 1-50 of a grain at bedtime. Camphoric acid, 12 grains at bedtime, may be used where atropine is objectionable.

8. *Diarrhœa*.—This symptom may arise either from ordinary causes or may be due to tuberculous ulceration of the bowels. The latter condition is not as common in adults as is commonly supposed. When it occurs it is a very serious complication and renders the prognosis grave.

When a tuberculous patient develops an attack of diarrhœa I invariably administer calomel in $\frac{1}{4}$ grain doses until a grain is taken, and put him on a diet consisting of milk and farinaceous foods. This, with whatever remedy is symptomatically indicated, will cut short the vast majority of simple cases in two or three days. It is a mistake to give astringents in the beginning of such attacks. In tuberculous diarrhœa a diet of milk and raw eggs is advisable. Flushing the colon daily with a quart of normal salt solution is sometimes helpful. *Merc. corr.* and *arsenicum* are the most generally useful remedies. In many cases we are compelled to resort to astringents. Personally, I employ the subgallate of bismuth or tannigen in ten or fifteen grain powders every three hours. Morphine, 1-12 or 1-16 gr. may be added to either of these if the pain is distressing.

RUPTURE OF THE UTERUS THROUGH THE CAESARIAN CICATRIX.—Broadhead (New York) says that rupture of the uterus through the Cæsarian cicatrix is of rare occurrence. With prompt operative methods the mortality is comparatively low. When pregnancy follows the Cæsarian section, this patient may be safely delivered again by section in a large percentage of cases. In repeating a section labor should be anticipated by a week or ten days. If section is to be repeated and labor sets in prior to the time elected for operation, the Cæsarian operation should be performed as soon as possible after the onset of labor pains. Sterilization may be done at the time of section, if the patient so desires. Suture of the laceration has proven successful, but in some instances hysterectomy will be the method of choice.—*Amer. Jr. Obs.* Vol. 57, 650.

THE SERUM OF THE EEL.

BY

EDWARD FORNIAS, M. D., PHILADELPHIA, PA.

At a meeting of the French Homœopathic Society, held on the 13th of May last, an interesting case of acute nephritis. treated successfully with the serum of eel was reported by Dr. Picard. This case of nephritis supervened immediately after an attack of articular rheumatism. The articular pains were violent and prevented the least motion. She had a similar attack seventeen years before, but never any other disease. An examination revealed both knees, wrists and elbows, as well as the left shoulder, painfully swollen and sensitive to touch, and motion of any kind was out of the question. The only articulations free of pain were those of the feet, and there was no fever.

Auscultation was negative and the urine normal. He ordered the covering of the joints with flannel, and prescribed chininum sulphuricum internally. A few days later she received bryonia. Eight days after the onset of the disease, she was attacked with vomiting and inability to retain anything in the stomach. The face then became bloated and he ordered a milk diet and demanded a specimen of the urine.

The examination of the urine showed a diminution of the normal amount (250 grammes in twenty-four hours), of high color, muddy, depositing abundant sediment. The chemical analysis revealed a large quantity of albumin (it was not measured). A slight œdema of the malleolus and dorsum of the hand was observed, but the effusion was more accentuated in the face and eyelids. She was found in a mild state of stupor, with no more pains, but complaining of frequent scanty urination, slightly painful, only a few drops passing at the time. Vomiting was frequent and profuse. Heart and lungs normal. He administered cantharis and belladonna in alternation, and ordered the same milk diet and rest in bed.

Twenty-four hours of this treatment did not bring any improvement (no wonder). Urination continued scanty, frequent and painful. The œdema of the malleoli and hands diminished somewhat, but it was increased in the face. Vomiting

ing was then more frequent and the state of stupor more marked. Auscultation remained negative.

At this stage of the trouble Dr. Picard decided to give the eel's serum, which seemed to cover well the totality of the symptoms. He employed the first centesimal attenuation, 10 drops in 250 grammes of water, a tablespoonful every hour, and placed the patient under a hydric diet. The next day the amount of urine was increased to about 500 grammes, and it was light and colored. The mictions were no longer frequent and painful and the vomiting ceased. The œdema and stupor had diminished and the heart remained normal. He continued the eel's serum, employing, however, the 1x instead of the 1c, in the same amount of water, a tablespoonful every two hours, and returning to the milk diet. The following day she passed about a liter of urine, the œdema disappeared and only a small puffing of the lids remained. Twenty-four hours more of this treatment brought on a notable improvement. The diuresis continued, and the urinary analysis showed only a small quantity of albumin (30 to 40 centigrammes). Milk diet continued, but only four tablespoonfuls of the serum every twenty-four hours. Three days later the urine was normal, no more œdema, but the serum was continued and the patient placed under a lacto-vegetarian diet. Two weeks elapsed without anything abnormal occurring. The urine is now normal in quantity and color, but still contains traces of albumin.

Here ended the personal observations of Dr. Picard, but he has heard of her continued improvement, though unable to know thus far if the urine still contains traces of albumin.

This report is highly interesting, not only because it shows the rapid action of the eel's serum, but because it confirms the indications of this ichthyotoxin in renal disease, as given by Jousset. The experiments of Jousset have amply demonstrated the rapid hematuria, albuminuria and oliguria caused by this toxin.

The notable diminution of the urine and the large quantity of albumin contained seem to have led Dr. Picard to the administration of this remedy, and the results he obtained were so rapid and positive that we can well congratulate him on his selection of the drug. Dr. Picard wishes us to bear in mind the rapidity with which diuresis became normal, and the almost complete disappearance of the albumin in a few days. No less important is the fact that in his case, the heart remained normal

to the last, when it is precisely in cardio-asthenias or asystolia where the serum of the eel shares honors with digitalis. He further claims that in the presence of an acute nephritis, with threatening uremia, we should always think of this serum, first introduced by Jousset in our therapeutics.

There is no doubt that eel's serum has a very efficacious action in functional troubles of the heart. Its chief indications, according to Jousset, are mitral insufficiency, asystolia, with or without œdema; dyspnœa, and deficient secretion of urine. This authority asserts that digitaline 3x, 40 to 50 drops, given three times, may have a more certain action in asystolia than the serum of the eel, but when necessary to maintain the compensation established by the former remedy, the serum is preferable to any drug. When digitalis does not act, the serum of the eel will.

Since the appearance of this ichthyotoxin in our therapeutics, I have been following with interest the clinical reports on this drug, and my desire to obtain it has been growing steadily, but unsuccessfully; till at last, through the kindness of Boericke & Runyon, of New York, I have recently procured this serum from Paris, and these gentlemen have not only volunteered to make the necessary attenuations, according to our methods, but have written to me already that they can now supply the medical profession. These are certainly good news, that will place us in position to verify and even enhance the usefulness of a serum, only employed by our opponents as a means to produce immunity in susceptible animals.

EDITORIAL

SOME CLINICAL ASPECTS OF PAIN.

ONE of the most common conditions which the physician is called upon to relieve is pain. Generally speaking, it is a symptom of disease rather than a disease of itself. It is usually a symptom of great diagnostic and prognostic value.

In gaging the importance of pain it is always necessary to consider the temperament of the patient. As Sir William Bennet recently remarked in an address dealing with this subject before the London School of Clinical Medicine, a delicately balanced nervous system renders some people much more susceptible to pain than others, and inability to bear pain should not be ascribed to cowardice. As examples of this point he cites two interesting cases. The first case is that of a negro who had a malignant growth of the naso-pharynx that rendered resection of the upper jaw necessary. Each side was removed at a different operation. For neither operation would the patient submit to the use of an anæsthetic, but sat in a chair perfectly quiet during the entire operation. The other case is that of an army officer, noted for his bravery on the field of battle, who howled loudly when the surgeon made gentle efforts to bend a stiff joint. As Dr. Bennet rightly remarks, it is impossible to believe that the negro in the first instance, brave though he undoubtedly was, could have been as susceptible to pain as the highly-strung officer. On the other hand, it would be unfair to attribute cowardice to the officer because he was unable to endure what was a proportionately very small physical disturbance. The mental and nervous peculiarities of the patient, therefore, must be carefully weighed in deciding the relation which the pain complained of bears to the seriousness of the physical disorder present.

A condition often associated with pain is tenderness. When present this symptom is usually indicative of some acute or chronic inflammatory condition either in the tissues or organs of the affected area or in the nerve supplying them. It is important to bear in mind that the pain may be in one place

and the tenderness in another, as in the case of hip joint disease, where the pain may be, for a time at least, in the knee, and the tenderness over the hip. It is, therefore, necessary to search for tenderness along the distribution of the nerves supplying the painful area. This rule is so simple that it is surprising to find how often it is neglected. An example of this came under our observation some months ago. A gentleman was suddenly seized with severe, shooting pains in the right inguinal region, which caused him to go to bed. A physician was sent for and finding considerable sensitiveness on the slightest touch in the right lower quadrant of the abdomen associated with severe pain, a diagnosis of appendicitis was quickly made and immediate operation advised as necessary to save the patient's life. He refused operation, and the following day rode one hundred miles in a railroad train to reach his home. When the patient came under our observation he was suffering from severe pain, paroxysmal in character, in the lower right quadrant of the abdomen. Marked cutaneous hyperæsthesia was present, but firm, deep pressure caused no distress. The temperature was normal and there were no signs of gastric or intestinal disturbance. Palpation along the spinal column revealed the presence of an exquisitely tender spot over the spinal roots of the ilio-inguinal and ilio-hypogastric nerves. Pressure on this spot would cause an increase in the pain from which the patient was suffering. A diagnosis of neuralgia or possible neuritis was made and under proper treatment the pain disappeared in twenty-four hours and never returned. In four or five days the patient resumed his ordinary occupation. The spinal nerve roots should always be palpated carefully in cases of abdominal pain. Neglect of this procedure would undoubtedly have led to the patient referred to being subjected to a dangerous and painful operation, which would have been of no therapeutic benefit whatever in his case. It seems scarcely necessary to add that we frequently have tender spots along the spine, associated with actual inflammation of internal abdominal organs, so that we must not, on the other hand, be led into the error of thinking there can be no intra-abdominal disease present in a given case of abdominal pain merely because there is a tender area along the spine. A study of all the subjective and objective symptoms are necessary to arrive at a correct diagnosis in such a case.

The subsidence or disappearance of pain is commonly regarded as a favorable sign. While this deduction is correct in many instances, we must not forget that at times the subsidence of pain is a sign of grave import. In other words, if the change in the character of the pain be out of proportion to the change in the associated symptoms, it should be looked upon with suspicion. This is especially true in abdominal cases where sudden cessation of pain may be due to the bursting of an abscess cavity or to the onset of septic intoxication leading to an indifference to pain. This latter condition, the indifference of septic intoxication, is often very deceptive and misleading. This is peculiarly unfortunate, as it is a condition demanding immediate and active treatment if the patient's life is to be saved. Our only safe rule in these cases is not to base our prognosis and treatment upon the subsidence of pain alone, but to watch carefully the temperature range, the character and rate of the pulse and the local signs of inflammation.

THE AMERICAN INSTITUTE OF HOMŒOPATHY.

The Kansas City session of the American Institute of Homœopathy accomplished more in the way of actual work than all of the sessions of the previous five years put together. Activity was the keynote of the entire meeting and the practical results that may be brought about with a progressive and wide awake man in the executive chair were never better demonstrated than under Dr. Copeland's regime.

The most important action of the institute, and in our opinion the one which is likely to be productive of the most good for homœopathy, was the raising of a fund of six thousand dollars for the promulgation of homœopathy and the passage of a resolution providing for a Field Secretary, who is to give all his time and energy to the accomplishment of this end. One of the first duties of this secretary will be to visit the various sections of our country to create new enthusiasm and vigor in the already existing societies and to organize new societies wherever there are a sufficiently large number of homœopathic practitioners. Another of his duties will be to make popular addresses and impress upon the laity the value and scope of the homœopathic method of treating disease. The

success that has attended the work of Dr. McCormick, who is employed for a similar purpose by the American Medical Association, has been such as to render similar work on the part of homœopathists not only advisable but even necessary. Dr. McCormick's lectures to the laity have been well attended wherever he has gone, and the effect of his talks has been to strengthen the position of the old-school in the mind of the public and of the legislators as well. As far as we have been able to learn he has made no direct attack on homœopathic practitioners in any of his lectures. Indirectly, however, he advises the public to consult only old-school physicians.

This advice is conveyed in the following way. Dr. McCormick has arranged a post-graduate course for the old-school county societies, which he introduces wherever he goes. In his address to the public he refers to this post-graduate course that has been established in connection with the old-school county society of the community in which he is visiting, and advises the people to find out whether their physician is taking the post-graduate course and if not to drop him and employ some physician who is taking the course. As the homœopathic practitioners cannot take the course without affiliating themselves with the old-school society they are naturally included among those who are pronounced unsafe and unprogressive by Dr. McCormick.

The amount of good that an enthusiastic and competent organizer can do for our school can scarcely be overestimated. We need a man for this purpose of broad and liberal views and one who believes firmly and conscientiously in the cause which he represents. He should be paid a liberal salary and the homœopathic physicians of the nation ought freely and willingly to contribute to the support of this propagandic work, which will not only mean the giving enlightenment of the public to the benefits and value of the homœopathic system of medicine, but will also be of direct financial benefit to practitioners of our school.

The next important action of the institute was the passage of a resolution "to make in the name of the institute a contract for not more than five years with some reliable publishing house to publish a weekly journal of not less than forty-eight pages, to be known as the Journal of the American Institute for Homœopathy," and "to contract to obligate the institute to no financial responsibility beyond the amount of \$2.50 per an-

num for each member in good standing of the institute." We believe the idea of an institute journal is an excellent one and one in line with progress. We have grave doubts, however, as to the ability of any publishing house to publish an up-to-date and satisfactory journal on the terms proposed by the committee. Time, however, obliterates the fictions of opinion and the coming years will demonstrate whether we are right or wrong in our judgment.

The incorporation of the institute as a national body is another accomplishment of the Kansas City meeting that is of no little importance.

This gives the institute a legal standing that it has never had before. This step was rendered necessary before an institute journal could be started.

It is interesting to note that two hundred and twelve new members were added to the institute this year. While the attendance at the Kansas City meeting was small if we judge the session by its fruits it must be voted the most successful one for many years. Let us hope that the good work begun at Kansas City will bring forth fruit at the next meeting at Detroit, in 1909.

IN THE STABILITY OF HOMŒOPATHY lies also its disadvantages. Some physicians have been content to confine all their endeavor to the search for the similia. They have no special interest in modern methods of diagnosis, nor in the new discoveries in the laboratories. They are our finest prescribers and they cure many patients, but in these days when people are restless, ever clamoring for new things to do and new worlds to conquer, the laborious search for the indicated remedy does not appeal to all of the young members of the profession. They use the homœopathic remedies in a routine manner and they fail. Perhaps they have not been taught the best there is in homœopathy. At any rate the kaleidoscopic conditions of the allopathic school allures them. Its continual changes seem progressive, and we are confronted with the facts presented to us at Atlantic City in 1906, that the number of students in the homœopathic colleges is on the decrease.

But why should any reasonable person turn from that which is, to that which is not, but eventually will be? It would seem like exchanging a butterfly for a cocoon, or a frog for a polly-wog. If we are at all adept in reading the signs of the times, the advance guard of medical and scientific men are on the high road to homœopathy. Every new theory advanced in the cure of disease leads a little nearer to the similia. Every important discovery in science substantiates the principles of Hahnemann.—Anna D. Varner, M. D., in *Medical Century*.

GLEANINGS

GASTRIC DIGESTION.—By Dr. O. Cohnheim (*Muench. med. Woch.*, December 24, 1907). The author found that it was necessary to inject downwards into the duodenum hydrochloric acid or products of gastric digestion to stimulate the stomach to do its work. A dog received 50 grams of meat cut in coarse pieces. Through a fistula placed immediately opposite the openings of the bile duct and the pancreatic ducts, after two or three minutes, secretion of pancreatic juice and bile was seen. From the fistula a yellow alkaline secretion issued, lasting from 10 to 15 minutes, but before the period ended the gastric contents were passed out through the fistula. This could be recognized immediately, for besides being acid and of different color the contents were squirted out by the powerful pyloric muscle. At first these emissions were irregular and varied in size, but after about 15 minutes they became regular and continued in small amounts at intervals of 15 or 20 seconds. After 40 or 50 minutes, if no acid was injected into the duodenum, slimy portions of undigested meat appeared. If acid was injected alone, pancreatic secretion followed, while the gastric contents also produced a flow of bile. The injection of gastric contents caused closure of the pylorus, lasting a short time; if repeated at short intervals only small quantities of undigested, or partly digested, meat were passed through the pylorus and finally 90 per cent. of the meat, was completely peptonized. As the process drew to a close, pancreatic juice and bile were again mixed with the gastric products, the result being an alkaline secretion mixed with quantities of mucus, the latter coming from the antrum of the pylorus. It was found that finely minced meat was partially digested in the stomach, throwing more work upon the intestine; coarse meat was more thoroughly digested in the stomach. In bread digestion, at first a large quantity of pancreatic secretion appeared, then considerable quantities of bile; the collected fluid, as contrasted with meat digestion, was alkaline. Bread is not so completely digested in the stomach as meat. Free hydrochloric acid is always absent with meat digestion products, while in bread digestion products it is present. If water or other fluid is given when the stomach is still full, the fluid passes the digesting material and immediately flows out through the pylorus, almost unaltered.—*The Post Graduate*.

THE DIET IN TYPHOID FEVER.—R. M. Harbin, M. D., (*Jour. A. M. A.*, July 18, 1908), gives a detailed study of the diet in 148 cases of typhoid fever. His conclusions are as follows:

1. The food factor in the treatment of typhoid fever is the most important practical question to be solved.
2. Toxemia is more marked in cases having gastro-intestinal disturbances.
3. Clinical evidences warrent liberal feeding only in a few cases.

4. The chief source of development of the *B. typhosus* is found in the intestinal canal and the lympho-poietic system.

5. The aim should be to nourish the patient without increasing saprophytosis, and the battleground of treatment lies in the gastrointestinal tract.

6. A greater danger exists from a toxic paralysis of nutritive activity of the cell than from inanition.

7. Any vital organs containing pathognomonic lesion of an infectious disease demand absolute rest.

8. The excessive nitrogenous waste in typhoid fever is not due to the endotoxins of the typhoid bacillus but probably mixed infections, and the specific typhoid toxin is not necessarily accompanied by high temperatures.

9. Emaciation occurs independently of the amount of food taken and results more rapidly from toxemia than from any lack of nourishment.

10. The patient's life does depend on attempting to maintain a normal nitrogen metabolism.

11. The proper food management will shield a patient from the usual dangers of typhoid fever.

12. Sthenic cases furnish the more dangerous types of the disease, and these are more amenable to therapeutic fasting.

13. Ambulatory cases are not less prone to intestinal complications than others.

14. A greater danger arises from septic conditions set up by a hemorrhage than the mere loss of blood entails.

15. Symptoms are no guides as to the presence of intestinal lesions, consequently patients require more or less routine feeding.

16. Abortive cases show a greater tendency to relapse.

17. Tympanites furnishes an increased area for absorption, and is provoked by any surplus of food, which increases peristalsis.

18. The great desideratum is to treat the patient and not the disease.

19. Scientific data prove that clinical diagnoses may be made with a reasonable degree of accuracy.

20. Therapeutic fasting allows an uncomplicated typhoid infection to pursue a normally mild course without any mixed infection, by reducing the bacterial content of the intestines. This was applied only to the severe cases.

21. Fasting will enhance the effect of hydrotherapy, and frequently render the use of antipyretic measures unnecessary.

22. Gelatin is a valuable food in that it lessens the nitrogenous waste and prevents hemorrhage.

23. The low mortality in this series of cases was greatly due to the elimination of relapses and complications among the mild or abortive cases by restricted feeding and lessening the dangers in sthenic patients by fasting.

24. In this report forty-five consecutive cases occurred without a death. Of the 144 whites, five, or 3.4 per cent., died, and the low mortality, 4.7 per cent., of all cases was ascribed to the dietetic management, though many of the cases had very inefficient nursing.

THE PASSAGE OF MEDICINAL AGENTS INTO MOTHERS' MILK.—Bucura (*Zeitschrift f. exper. Pathol. u. Therap.*) says that the transference of medicinal substances taken by the mother into her milk and the possible interference with the welfare of the child is not yet sufficiently studied. Only certain medicaments, such as potassium, iodide, sodium, salicylate, æther, antipyrin, mercury as rectal suppositories, have been positively shown to pass into the milk. Furthermore, positive results in regard to atropin, morphine, arsenic, lead, zinc, copper and bismuth are based upon animal experimentation. He administered 40 different drugs to nursing mothers, whose milk was then tested as to the presence of the respective medicinal agents. It was found that, contrary to the general assumption, the customary laxatives, mineral salts, etc., do not pass into the milk. A peculiar behavior is shown by mercury. Calomel administered internally does pass into the milk, whereas no Hg could be demonstrated in the milk after mercury inunctions and injections. Substances which positively pass into the milk besides the above-mentioned drugs are aspirin, arsenic and bromides, probably also urotropin. It remains to be seen whether or not the administration of larger doses will result in transference into the milk in the case of certain other medicinal agents which yielded negative findings.—*Charlotte Med. Jour.*

THE TREATMENT OF WARTS.—Dr. C. T. Dade gives the following summary of the treatment of warts: Flat warts that occur in groups on the face in children need but to be lightly swept over with glacial acetic acid; the slight burning is not very painful, and with the subsequent peeling of the skin that takes place the warts come away, leaving no cicatrix. A 10 per cent. salicylic acid or resorcin ointment will cause a desquamation sufficiently active to remove the warts, but more slowly. Touching carefully with glacial acetic acid until saturated and allowing the subsequent crust that forms to stay in place until it falls of itself is the best method for isolated flat warts anywhere on the hands or face. For small common warts on the hands the quickest method is extirpation with a small, sharp curet, then touching the denuded surface, after the bleeding had been partly staunched by pressure, with the nitrate of silver stick. This stops further bleeding and no dressing is needed. A black crust forms, which falls off in a week or so, leaving an insignificant, if any, scar. The pain of the silver stick can be much mitigated by first cocainizing the surface after bleeding has been arrested. If this method is too painful, and it generally is, except for the smaller warts, glacial acetic acid is to be recommended. This causes no inconvenience by staining and is not very painful, but the process is slow, repeated applications having to be made before the entire removal of the wart is finally accomplished. Nitric acid is quicker, but leaves a yellow stain and is far more painful. Chromic acid has the same drawbacks. In using nitric acid care should be taken to cover the surrounding skin quite up to the base of the wart to be operated on, no matter how small a one, with a fairly wide ring of zinc oxide ointment; this will protect from a possible overflow of the acid onto the skin and a burn, with resulting disfiguring scar, be avoided. The action of nitric acid is difficult to control at best, and often the resulting cicatrix is worse than the original wart. I seldom use it, much preferring glacial acetic acid when I use acids at all.

Electrolysis for large warts is a very good method, but quite painful. The negative needle is plunged in deeply at the base of the wart, held there for a few seconds, then almost withdrawn and again inserted in another direction; this is repeated until the entire blood supply is cut off. The wart dries up and falls in a week or so, leaving a good scar. For removing very large warts or medium sized warts, single or in groups, and especially warts around and under the nails, where the use of acids gives poor and slow results, and the use of the curet and silver stick process or electrolysis is far too painful, liquid air is by all odds the best means, and with us at the Vanderbilt Clinic has practically superseded all others. After an application of liquid air of from thirty to forty seconds' duration, the wart in a few days has dried into a crust, which shortly falls, leaving but the most insignificant, if any, reminder on the skin, and the testimony is that the pain is less even than that caused by glacial acetic acid. Our former method of cureting seems now like butchery in comparison with the liquid air treatment.—*Archives of Pediatrics*, July, 1908.

AN IDEAL METHOD OF PRODUCING ANAESTHESIA.—Gwathmey (*Amer. Jour. of Surgery*), recommends the following as an ideal routine method of producing anaesthesia:

1. In addition to the usual preparation the patient's nerves should be controlled by previous medication in either of the two following ways: (a) a suitable dose of morphin according to the age and condition of the patient; or, (b) an enema of seven ounces of saline solution and one of whiskey one-half hour before the operation. The patient will then come to the table in a suitable frame of mind.
2. The narcosis should be commenced with nitrous oxid and oxygen or nitrous oxid and air, and continued until full surgical anesthesia is reached with this agent, and then the ether chamber turned on gradually and slowly. In this way there will be no swallowing in the first five minutes.
3. The method of administration should now be changed to the closed inhaler and the anesthesia deepened by rebreathing. This should be continued until the whole system has been thoroughly stimulated by the ether.
4. A change should now be made to warm chloroform, given either by the vapor method or drop by drop.
5. This change to chloroform should be made when the patient is only lightly under the ether. Care must be taken not to allow the patient to come out sufficiently to exhibit any rigidity of the muscles. On the other hand, not to deepen the narcosis unnecessarily.
6. As the operation is drawing to a close a warm saline enema should be given and the anesthetic should be so lightened that the patient will exhibit signs of consciousness as the bandages are being applied.
7. Place the patient in bed with as little jolting and jarring as possible.
8. Darken the room and allow the patient to sleep until natural awakening occurs.
9. The enema should be repeated every few hours as required. That is, until the patient shows some effects of its administration.

A SIMPLE METHOD OF CIRCUMCISION IN THE NEWBORN.—Dr. W. Reynolds Wilson, Philadelphia, states that the disadvantages of the usual

method are first, in the incompleteness of the removal of the foreskin in instances where it was adherent to the glans; second, in the application of the sutures; it might require a number of sutures to control the bleeding points and the sutures thus placed irregularly might have to be tightened to the point of unduly constricting the tissues, as a result of which edema might occur; should sutures become infected, a slough would form and resulting granulations would be difficult to deal with. He splits the prepuce longitudinally on the dorsal aspect with a pair of sharp scissors. The skin is first divided, division of the mucous membrane to a point corresponding to the limit of division of the skin following. The mucous membrane is rolled back to the corona and rendered perfectly free. The scissors are used to trim off the redundant fold of skin and mucous membrane on either side of the incision, and the redundant fold of skin to the distal side of the frenum is likewise removed. The skin is then drawn back and carefully inspected, in order to deal with any irregularity in the cut edge. A tape of gauze, half an inch in width, and so cut that the edges are frayed is applied, securing the roll of mucous membrane in position behind the corona and compressing the bleeding vessels. The end of the glans is left uncovered so that there might be no obstruction to the meatus. Over the gauze tape a dry gauze pad can be placed and the napkin applied.

THE CANCER PROBLEM.—Park (*Amer. Jour. of Surgery*) discusses the history of the various views as to the nature of cancer; that it is due to local inflammation, to heredity, to embryonal remains, to traumatism. These have all been found absolutely unsatisfactory and should be discarded. The intrinsic theory, which attributes it to cellular action, fails to explain the essential features. Park insists that cancer and the so-called cancer cells are to be explained on the theory of some extrinsic cause. He insists on a parasitic theory. He refers to its much greater prevalence among women, and insists that there is a real and not a seeming increase in cancer. In Buffalo, every house in which cancer deaths have occurred is noted, and it is found that in numerous instances several deaths from cancer have occurred in the same house. He insists that the disease is actually contagious; in evidence of which he notes such instances as the development of cancer along the tract of a trocar that has accidentally wounded a cancerous liver in paracentesis for ascites, and linear scar cancers, where a knife that has touched cancer tissue is used in healthy parts. Transmission takes place in surfaces constantly in contact. He refers to inoculation experiments, especially those at the Butler Laboratory. There is absolutely no special carcinoma cell, he asserts; the parasites of cancer seem to be practically omnipresent. He enumerates the possible courses of transmission through contact with our neighbors. The very term metastasis implies that some infectious element is transported from one part of the body to another. The theory by which the cancer cell is erected into being its own parasite is far more revolutionary, and taxes the imagination far more than the theory which seeks to find the explanation in some extrinsic agent and which is already receiving such striking corroboration from both clinical experience and the experimental laboratory. Cancer begins as a result of local conditions. It may be that there are several organisms capable of producing it. Cancer, with all its local characteristics and its fatal termination, is a disease without a symp-

tomatology of its own. The finding of a tumor is the first sign, in cancer of the stomach, for instance, not a symptom. The symptoms are not distinctive of cancer. He believes that it would be far better if condemned murderers could be subjected to legitimate experiments—such as have been made with animals, for instance, into the production of retrocession of malignant tumors—than to electrocute them.—*Jour. A. M. A.*

TREATMENT OF HEMORRHAGE AFTER OPERATIONS ON THE NOSE, NASOPHARYNX, AND TONSILS.—Oscar Wilkinson, Washington, D. C., *Journal of Ophthalmology and Oto-Laryngology*, June, 1908. Slight bleeding can usually be controlled by adrenalin, or by hydrogen peroxid applied on a small, firm, moist cotton swab. Clots should be removed and the nose cleaned and dried as thoroughly as possible, first. Nitrate of silver, 30-40 per cent., may act well when other styptics fail. If a bleeding point can be detected, the use of the cautery is indicated. If not promptly controlled by these measures, the nose should be packed with strips of gauze. In hemorrhage from the naso-pharynx, as it may be observed after the operative removal of adenoids, styptics, such as tannin and antipyrin are of service, but it may be necessary to tampon the posterior nares. If a Bellocq's canula is not at hand a shot may be attached to a strong silk thread, dropped through the nose into the naso-pharynx, and drawn out through the mouth with a pair of forceps. A large plug of gauze saturated in tannin and antipyrin is now attached and drawn back so as to cause compression in the bleeding area. Post-operative tonsillar hemorrhage unless severe, usually yields to ice water gargles. Styptics, especially preparations of iron, obscure the field and are unreliable, but strong solutions of silver nitrate (30-60 per cent.), tannin-glycerin, or tannofaalic acid, act well. A single point may be touched with the cautery. Digital or instrumental compression with some form of clamp is effectual, but may cause reflex gagging and vomiting, and not be tolerated. Surgical treatment consists in the twisting of the arterial twig, ligation of the tonsillar stump, tying a purse-string suture about the stump, or in total incision of the stump, packing the tonsillar cavity and closing it up by sewing the anterior and posterior pillars together. Wilkinson has devised a curved needle for rapid placing of the stitches. Ligation of external or common carotid is hardly justifiable, and, what is more, is not always efficacious. The most valuable internal remedy is undoubtedly opium, both for its action on the circulation and for relief of pain and anxiety. The effect of ergot is doubtful, as is that of adrenalin. Stimulants are contraindicated, unless the patient has fainted from loss of blood, and hemorrhage continues after he has regained consciousness. Any restriction about the neck, such as a tight collar, should be removed, the patient should take deep inspirations, and should sit up, not lie down. Tonsillar operations on adults should be undertaken with caution, lactate of calcium used internally in 20-30 grain doses, several times daily in case of any tendency to hemophilia, preference given to snaring or crushing over cutting procedures, and the patients kept under observation for some time after operation. Tonsillectomy should not be performed immediately before, during, or after menstruation.—*Amer. Jour. of Surgery.*

MAGNESIUM SULPHATE SOLUTION IN ERYSIPELAS.—Tucker reports the good results obtained at the Philadelphia General Hospital, in his ward, in 19 exceptionally severe or complicated cases of erysipelatos infection. In 35 uncomplicated cases all patients recovered in from two to seven days, the pain and local discomfort being being relieved in a few hours. He describes the technic as follows: The application consists of a saturated solution of magnesium sulphate in water. This is applied in facial cases on a mask consisting of from fifteen to twenty thicknesses of ordinary gauze, of sufficient size to extend well beyond the area involved, a small opening being made to permit breathing; no opening, however, is cut for the eyes. The mask is then thoroughly saturated with the solution, applied and covered with oiled silk or wax paper, and wetted as often as necessary to assure a moist dressing—usually once in two hours, depending on the time of year or the temperature of the room. The dressing should not be removed oftener than once in twelve hours, to permit an inspection of the parts, and then should be immediately reapplied; the infected area should not be washed while the treatment is employed.

ECZEMA.—The etiology and treatment of Leighton Kesteven, in the *British Medical Journal*, contends that eczema is a pure neuropathia and is to be attributed to neurotic action. Kesteven divides eczema into two classes when he considers the question of treatment. (1) That from within, acting through the sympathetic chain of the functional system, may be denoted the ganglionic or idiopathic form, and (2) that arising from external or local irritation, the peripheral or traumatic. In those forms of eczema due to the gouty condition, the gout must be treated plus a nerve sedative; potassium iodide and acetanilid are recommended by the author, but he cautions against the use of colchicum for the reason that it causes dilation of the capillaries and thus increases the exudation. Where anæmia seems to be a disturbing factor, iron is indicated. Where alcohol is the cause, the withdrawal of its use and the administration of the bromides and atropine brings alleviation. The author goes on to further insist on the removal of the existing conditions and lays great stress upon the administration of a nerve sedative no matter what existing condition. Regarding local treatment, the author advises carbolic acid as follows: "The pure liquid carbolic acid applied to a red inflamed eczema gives sharp but short punishment, and leaves the part practically dead, and this dries rapidly, forming a scab under which the previously raw surface heals quickly, the scab on falling off leaves the surface clean and sound." This line of treatment is especially of use in small patches of eczema; a one to eleven dilution of carbolic acid is advised. Kesteven further recommends a mixture of iodine and carbolic acid solution, one ounce of the tinct. of iodine to nine ounces of the carbolic solution, to be kept applied on lint under oiled silk.

RALPH BERNSTEIN.

X-RAYS IN CUTANEOUS TUBERCULOSIS.—Tomkinson, in the *London Practitioner*, advocates a method of treatment for lupus vulgaris of the face, etc., that he claims is effective and gives good cosmetic results. He begins by removing the crusts with a salicylic ointment. In a few days the X-rays are directed on a part of the diseased area for 5 minutes daily.

After three or four exposures embracing the entire surface, in divided doses, it is plastered with Unna's 50 per cent. salicylic acid and creosote plastermulle, renewed daily, previously swabbing with 10 to 20 per cent. cocaine, if necessary. In ten days or thereabouts much of the tuberculous tissue will have come away and the lesion, after swabbing with cocaine and drying, is painted with the following:

R.

Phenol	50
Lactic acid	15
Salicylic acid	15
Alcohol, absolute	20

Well agitated before application, as there is a considerable sediment.

A few minutes later the lesion is painted with the following:

R.

Phenol	80
Alcohol, absolute	20

Where the lesion is extensive it should be cauterized piecemeal. After cauterization it is dressed for a day or two with sterilized lint and carbolic oil (1 in 30); thereafter with a 20 per cent. aqueous solution of ichthyol until healing has taken place. After healing, X-ray treatment is recommended with short exposures of from three to five minutes. At the end of three or four months treatment is discontinued for a considerable time, the patient being subjected to periodic inspection. Tomkinson says that many cases of a markedly virulent character and of many years' duration have yielded to it.

A CASE OF SEPTICOPYEMIC METASTASIS IN TWO EYES OF THE SAME PATIENT.—The case reported was that of a young woman who developed septiemia following an induced abortion. The left eye was first affected. The conjunctiva was very much swollen and the anterior chamber was filled with pus. There was complete loss of vision. Vision in right was impaired, but the patient could count figures at any distance. The left eye was eviscerated and the scleral cavity was packed with gauze, with the expectation of later implanting a glass sphere or of enucleating the stump and doing an Adams-Frost operation. The media of the right eye was clear; the nerve head was somewhat edematous; cornea clear, but on the evening of the same day the vitreous and anterior chambers were filled with pus and the woman was completely blind. Under local hot applications and saline injections the eye quieted down, leaving an interior staphyloma of the choroid and sclera which finally subsided. The eye ball was quiet; the cornea cleared, and the anterior chamber became free from pus.

The lens was cataractous. The iris was bound down by adhesions. A secondary irido-cyclitis set in and phthisis bulbi ensued. The eye had to be enucleated. A bacteriological examination proved this to be a streptococcus infection. The bacteria were obtained from every section of the eye. The woman is alive and well.—Dr. George F. Suker, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

A CASE OF ALBUMINURIC RETINITIS IN A YOUNG PATIENT.—The reported case is that of a young girl, age 18 years, who was first seen by her fam-

ily physician in July, 1906, when she had dropsy of the feet and face. In September of this year there was still 5 per cent. of albumin in the urine. The disease was progressive, and a diagnosis was made of chronic Bright's disease.

In October, 1906, the patient complained of her vision, but no examination of the eyes was made. At that time the patient weighed 165 pounds from the dropsical accumulation. On the last Sunday in December, 1906, she had a uremic convulsion, and there was complete anuria. She remained unconscious for 48 hours, then rallied and improved slowly.

In January, 1907, she could only count fingers at one foot. In June, 1907, when Dr. Frank first saw the patient, the vision in the right eye was 6-12 plus in the left eye hand movement. Under homatropin-cocain, right eye was 6-9 plus; with correction plus 0.75, plus 1.00 ax 90°=6-6; in the left eye there was no improvement. The fundus was typical of an albuminuric retinitis. Vision gradually improved, and in August, 1907, with glasses, she reads 6-6-6 and in September, 1907, 6-6 plus, and on October 8, 1907, when last seen, vision equalled 6-5. No improvement in left eye.—Dr. Mortimore Frank, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

CASE OF ALMOST COMPLETE IRIDODIALYSIS.—The case of a man who in stooping suddenly struck his right eye on the back of a chair. Immediately his sight was gone and vision did not return. He suffered great pain. When seen three or four weeks after the accident, it was evident that there had been a rupture of the choroid. There was a large scar, 3 to 4 millimeter above the limbus. The iris was completely torn away above, and had settled in the lower portion of the eyeball. The pupil was a small black spot. The anterior chamber was very deep. The lens had evidently been dislocated or had come out of the eye entirely, or down in the vitreous. The iris is tremulous, showing that the lens is gone. At first the eyeball was very soft; now it is very hard. According to one theory, when the cornea receives a blow, the lateral diameter of the eye is suddenly increased. The iris cannot accommodate itself to this increase and the pectinate muscle is torn from its attachment.

Another explanation, and in Dr. S. opinion the better one, is that when the eye is struck violently, the aqueous is forced backward and the weaker portion of the iris is the most likely to yield, and an iridodialysis results.—Dr. E. F. Suydaker, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

PENETRATING WOUNDS OF THE EYEBALL.—Dr. John A. Donovan gives the following rules for the management of wounds of the eyeball:

1. Mild antiseptic cleansing—1 to 5,000 mercuric iodid (preferable), 1 to 2,000 mercuric cyanid or 1 to 5,000 mercuric bichlorid or saturated boric acid. Argyrol in special cases.

2. Remove all magnetic foreign bodies at once; also any or all that can be removed easier and safer now than later. Those remaining to be removed from time to time when the eye can most safely stand interference.

3. Enucleate at once only such eyes as have been totally destroyed. Even then it might often be better to wait till about the fourth day to avoid the possibility of any question arising later. Others should be

cleaned, filled with salt solution if necessary, prolapsed iris replaced or cut off and got in the best possible condition.

4. Cauterize infected wounds; stitch when lids will not hold edges in apposition; use atropin and dionin, as indicated. Hot applications are always safe and usually preferable to cold.

5. Keep patient in bed at least a few days, longer if possible, remembering that detachment of retina may have occurred.

6. Never interfere with an eye until you feel reasonably certain you are now doing the best thing, and that this is the best time to do it; otherwise always wait.

THE MANAGEMENT OF DISPROPORTION BETWEEN THE FETAL HEAD AND THE MATERNAL PELVIS.—In discussing this subject at length, Vgorhees (New York) says he has seen cases where delivery seemed almost impossible, terminate spontaneously or with the assistance of an easy forceps operation. This resulted because the head was small and the bones compressible, or because of the force of the uterine contractions. In 972 contracted pelves occurring in 10,000 cases at the Sloan Hospital, labor terminated spontaneously in 66%. Edgar observed a like result in 70% and Williams in 71%, but these results were obtained in much smaller series of cases. A number of procedures may be tried with success to aid nature to perform the physiological process of labor unaided. In all cases he advises the patient not to overeat. This limited diet, not lessened enough to cause loss of strength, may reduce the size of the child. He also insists that the uterus be supported and forced back against the spinal column by means of an obstetric corset or abdominal binder. This support and pressure may cause an early engagement of the head, with good flexion. If the abdomen is pendulous and the head rides high above the pelvic brim, the case is likely to have trouble. He advises the patient to take long walks, especially in the last month of pregnancy. Difficulty in walking is a good indication, since it indicates relaxed joints. He advises to attempt to tone up the uterus to secure strong contractions, by using a sixtieth of a grain of strychnia three times a day in the last month of pregnancy, associated with two or three grains of quinine during the last week or two. On the other hand we must not leave too much to nature. Pelvimetry is a necessity for routine examination of patients, but the measurements do not tell the whole story. This is illustrated by a case related having a high promontory. Frequent examinations in the latter part of pregnancy may prevent the call for difficult obstetric operations. One of the most consoling observations in any case is to find the head dipping into or engaged in the pelvis, although by itself this is not a reliable index of the termination of the case, for there may still be contractions at the outlet. The author discusses the Cæsarian section and other obstetric operations. It is interesting to note that he says symphysiotomy is an operation of the past. The author thinks the best means of inducing labor, not only for pelvic deformity, but for all other indications such as the various forms of toxæmia of pregnancy, endocarditis, tuberculosis, &c., is a modified Charpentier balloon.—*Amer. Jr. Obs.*, Vol. 57, 519.

THEODORE J. GRAMM, M. D.

THE SIGNIFICANCE OF PAIN IN PELVIC DISEASE.—Novak (Baltimore) concludes his article as follows: While it is true that a careful physical examination is of the first importance in the diagnosis of pelvic disorders yet a consideration of the character and distribution of the pelvic pain will often yield interesting and suggestive information, although the limitations of such observations from the standpoint of diagnosis are evident. The good surgeon will as far as possible endeavor to ascertain the exact nature of the disease before resorting to operation, and will not rest content with merely deciding as to the advisability or inadvisability of operation. The pain of pelvic visceral disease is in a general way governed by the same laws which apply to the causation of pain in other abdominal viscera.

One of the dangers of the neglect of pelvic disease, is the possibility of the development of a condition of neurasthenia, with a diffusion of pain to other parts of the body, and the appearance of other more or less characteristic symptoms of this condition. One of the reasons for the continuance of unpleasant symptoms after operative treatment of pelvic lesions, is the persistence of the neurasthenia which is frequently a complicating factor in such cases. Hysteria as it manifests itself by pelvic symptoms presents the same characteristics which distinguish it as it appears in other parts of the body. The removal of normal ovaries for conditions of pelvic pain is founded upon an erroneous and obsolete conception of the mechanism of such pain, and modern surgery has condemned such a procedure as unjustifiable from a theoretical point of view, and useless from the standpoint of clinical experience. The so-called fibro-cystic ovaries are frequently found in women who enjoy perfect health, and hence great caution is necessary in attributing pelvic pain to such organs. If operative treatment be resorted to at all, it should be conservative rather than radical. The gynecologist must learn to look upon pain as the resultant of two factors, the lesion and the patient, and in order to arrive at an intelligent appreciation of the true significance of pelvic pain, he must study both these factors with equal fidelity.—*Amer. Jr. Obs.*, Vol. 57, 473.

THEODORE J. GRAMM, M. D.

PRESERVATION OF THE OVARIES IN HYSTERECTOMY.—Peterson (Ann Arbor) has studied the effect of preserving the ovaries entire or in part when removing the uterus, and bases his conclusions upon an examination of 250 cases. He summarizes his article as follows: At least 10% of all women regularly menstruating at the time of operation will be free from the troublesome symptoms of the artificial menopause after hysterectomy with removal of the ovaries. The percentage of women with no symptoms after similar operations will be slightly more than doubled if some ovarian tissue be retained. The severity of the symptoms of the artificial menopause is much less when the ovaries are retained after hysterectomy. It is not necessarily true that the younger the woman, the more will she suffer from the symptoms of the menopause after hysterectomy with removal of the ovaries. The greater percentage of suffering occurs in women operated upon between the ages of forty and forty-four. Therefore, the rule that ovaries should be removed from patients over forty when hysterectomy is performed should not be followed. The frequency and severity of the artificial menopause is not influenced in any way by the kind of hysterectomy performed, whether the ovaries be removed or re-

tained. The severity of the symptoms of the menopause is practically the same after hysterectomies with removal of the ovaries for fibroid diseases of the uterus and inflammatory diseases of the appendages. Retention of ovarian tissue after hysterectomy cuts short the period from which patients usually suffer from the symptoms of the artificial menopause. The greater the amount of ovarian tissue conserved, the more will the symptoms of the artificial menopause be mitigated.—*Amer. Jr. Obs.*, Vol. 57, 633.

THEODORE J. GRAMM, M. D.

THE DIAGNOSIS OF EARLY PREGNANCY.—McDonald reviews our knowledge of this subject and says to make a decided diagnosis of pregnancy in the early weeks of pregnancy is one of the most difficult problems in medicine and one in which the physician's prestige with his patient may suffer the greatest shocks. This difficulty is illustrated in a series of 77 cases of abdominal section in which unsuspected pregnancy occurred. Associated with these cases are the names of many of the most distinguished gynecologists and surgeons of the world. After reviewing the unreliability associated with the patient's history of amenorrhœa he calls attention to Gile's study of the nausea and vomiting of pregnancy who found 45% of pregnant women are exempt from vomiting during the first three months. Women who menstruate painlessly suffer less from sickness. It is most common during the second month, although three-fourths of all cases begin in the first month. Morning sickness may occur in other conditions than pregnancy. The breast signs of pregnancy are reviewed. The time when these phenomena manifest themselves varies very much, but usually it is about the ninth week.

The physical signs, when present and when capable of being elicited, are more reliable. The author has studied 100 cases during the first three months, and has tabulated the results. From these it appears that symmetrical enlargement of the uterus was present 53 times, enlargement to the left 21 times, to the right 26 times. Symmetrical softening of the uterus was present 53 times. Jacquemin's sign, blueness of the anterior vaginal walls, was present 57 times, and absent 43 times. Hagar's sign was only absent 6 times. The cervical blush was present in 61 cases. The cervical softening was demonstrable in 66 cases. Intermittent uterine contractions was absent in only 12 cases and flexibility of the lower uterine segment was absent only three times.—*Amer. Jr. Obs.*, 57, 323.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

SOME PECULIARITIES OF PHOSPHORUS.—By Frank Kraft, M. D., Cleveland, O. To be sure there is nothing new under the sun. Nobody said there was. And especially not in homœopathy. The remedies proven by Hahnemann and his immediate disciples, are as good now as they were when uttered by that early band of missionaries and homœopathic patriots. And what is still more wonderful, they will continue thus valuable, and reliable, and invariable in the hands of the true practitioner, till the last man Adam shall have been gathered unto his fathers, and the sky shall be rolled up like a scroll. Further, the remedies are as good in farthestmost Gilgal, or southernmost Antarctic islands, as they are to-day in Cleveland, or even Omaha and Detroit. Truly, homœopathy is a wonderful discovery.

Diseases by name may come and go, and, indeed, like the brook, go on forever; they may change their names, and from mild-mannered, innocuous bellyache or stomachache, become the most direful and weirdful appendicitis. And, still, homœopathy is indicated, and when indicated, will cure, no matter under what name, or in what locality, or age, or color, or previous condition of servitude it may be found. But that wasn't what I started out to say when I slipped this yellow sheet into my typewriter—non-chemical—to write a few lines on some peculiarities of phosphorus.

Yes, it is an old, fire-tested, and well-proven remedy. Like sulphur, it has an ancient history, and has done much bad work as well as being responsible for a good many good things. Like the average human you cannot get a correct notion of it unless you read it in its many-sidedness and make due and proper allowance here and there for things that surprise you by their unexpected goodness, as well as disturb you by their unnecessary badness.

The phosphorus patient, as a rule, not always, of course, is a tall, slender, handsome personage, with dark hair, a pretty eye—two, in fact,—a white face, with a charming spot of normal rouge on each cheek; the lips are full and amorous, chin somewhat heavy and sensual; graceful in manner and deportment and very, very fond of the opposite sex. The patient is as hypersensitive as the belladonna patient; hearing and seeing and smelling, tasting and feeling far better than other people, and very unlike, let us say, the calcarea carb. patient, with this grand and distinguishing difference, however, that in belladonna this hypersensitiveness is a disease condition, while in phosphorus it is natural. Do you catch that? Very

well, then, kindly hold on to it, for it is one of the bulwarks of phosphorus. In belladonna the patient is prone to be wild and unmanageable as a result of his cumulative disease; while in phosphorus there is no excitement beyond that which appertains to the individual per se.

This latter patient, then, this phosphorus personage, of either sex, is classed with those mysterious, almost uncanny and supernatural creatures who have a sixth sense; who are born with a caul; who are able to see what is not seeable, to hear what is not hearable, and, in general, to know what is not knowable. So we come to that division of people who live in attics—that is, the clouds, who are always at concert pitch—'way up in g; who are primed full of sleezy sentimentality and unctuous imagination; who write Browning poetry by the metre—though not always in meter;—who paint pot-boiler pictures of the impressionist order, wild of composition, leery of perspective, and totally unfounded in common reason; that order of people who are clairvoyants (kartenschlagerin), palmist, theosophist, Christian Scientist, spiritualist—and of the like order of occupation or religious belief.—*The Medical Counselor*.

EFFECTS OF IRON.—A. M. Cushing, M. D., Springfield, Mass. I spoke of the metastasis of disease causing consumption, the great white plague destroying millions yearly, but that is only a slight cause compared with a medicine freely given, and I crave your indulgence while I refer to it. We see hundreds of feeble women (as well as men), who are trying to make new blood by taking iron. The celebrated physician who introduced iron into the practice of medicine said he thought he had done a wonderful thing, but experience proved it to be a fearful mistake, as he knew of nothing so liable to produce consumption as iron; that he lost an only sister with that disease and he was sure it was caused by the use of it. To-day it is used indiscriminately, recklessly, and physicians order a substance put into the stomach that they dare not let touch the teeth. Iron or quinine mixed with albumen form an indigestible, non-assimilating substance, robbing the system of albumen, the lubricant of the blood vessels, and inviting death.

Let us go back fifty years. Then every morning and evening could be heard the charming songs of the wild birds on our hilltops. Now those hilltops are dotted with hospitals, filled to the doors, and hundreds waiting, where day and night can be heard the hollow cough of the consumptive (if they are admitted) the moanings of the cancer patient and the muttering of the insane. Much is being done in those hospitals and outside, to prevent and cure incipient cases of consumption, but there is another class that calls for help—that class that cannot enter the outer gates of those hospitals. What can be done for them? So far as I can learn, medicines form a small part of the treatment there, which I think is a mistake. To-day I can show you patients who fifteen, even twenty-five years ago, had badly ulcerated lungs, severe hemorrhages and hope gone, restored to comfortable health, solely by the administration of the indicated remedy, following the law given to Moses in the wilderness, and the dose but a little larger; and others have done much better than I.

To-day the world comes to us on bended knees praying for help from this great glacier of disease, scarcely affected by the little boulders we throw in its path. What can we do? In the quiet of our homes we can

think, first of this great avalanche of disease on the one hand, and on the other, the deluge of iron and what I called the "Bloody Fight," and see if they are not traveling on parallel lines and at a similar rate of speed. Can there be any connection between them?—*Medical Century*.

LACHESIS IN THE NEWSPAPERS.—Probably the most of our readers saw or read the very sensational accounts about obtaining a new supply of lachesis from a snake at the Bronx Park, New York, that appeared in various newspapers during the latter part of April, with the usual flaring headlines and pictures.

Lachesis is the poison of one of the largest venomous snakes known. It was proved by Dr. Constantine Hering, and for over half a century has been one of homœopathy's distinctive medicines with a very clearly defined therapeutic field.

The newspaper sensationalist reported that the supply of the drug had become exhausted. The truth is that the supply is not exhausted, nor in the remotest degree likely to be, of the stock of the venom from which the provings were made.

One doctor who was "interviewed" by the reporters said that the supply was nearly exhausted; and what was remaining is nearly inert. If he had had any experience with the remedy he would not have made the statement. The drug is just as potent as ever. Many physicians have given us personal testimony on this point. They unanimously declare that the lachesis now in use is as potent as ever. One, a homœopathic surgeon, said that but a few weeks ago a man had been sent to have a hand amputated. The hand was in a very bad condition, and his physician had told him that amputation alone would save his life. The surgeon, disliking to cut off the hand while a chance remained to save it, told the man that he would prefer giving him some remedies before performing an operation. He gave him lachesis, which totally changed the nature of the disease. An operation was avoided, and the man's hand was saved. It was a case of threatened gangrene.

The worst feature of this sensational affair is the doubt as to the snake being the same as that from whose poison the proving was made. The snake from whose poison the proving was made is in a state of perfect preservation at the Academy of Natural Sciences at Philadelphia, and those who have seen it and the alleged lachesis snake at the Bronx Park say they are evidently of a different species. The one at the Bronx is probably a *Bothrops lanceolatus*, or lance-headed viper, a common tropical snake whose venom has never been proved, while the lachesis of homœopathy is a much larger, rarer and more dangerous reptile. It would be bad for homœopathy if the two were to be used under the name of lachesis, for it is of vital importance that the drug be true else it is useless. The virus of the lance-head may be as valuable as the lachesis, but until it has been proved it is useless. Homœopathic medicines are arms of precision.—*Homœopathic Envoy*, June, 1908.

THE PRESENT POSITION OF "OPSONIC" TREATMENT.—Since the first announcement of opsonins by Sir A. E. Wright, the treatment founded on his conceptions has extended, and it may not be out of place briefly to review the matter as it now stands. The May number of the *Practitioner*

contains an elaborate and convincing series of articles designed to establish both the accuracy (in competent and painstaking hands) of opsonic index estimations and the value of the treatment in various affections. The whole number is well worth reading. No homœopathist is likely to quarrel seriously with the facts of this treatment, which has done more to advance unconscious homœopathy than any one discovery for many years. Our American brethren are beginning to experiment in the direction followed by the B. H. A. research on Phosphorus, to see if the simillimum raises the index when administered to bacterial disease. There is very little doubt in any of us that it does, but there is a certain satisfaction in producing definite evidence of the fact, especially in an age of medical scepticism. It is to be hoped, therefore, that more and more experiments will be done till the evidence is overwhelming. But, apart from the main question, there are one or two points of interest in recent work. Dr. Dudgeon and Dr. Shattock (Proc. Royal Soc.), by experimenting with the pigment melanin and the ability of phagocytes to take it up, conclude that there is a factor in phagocytosis arising from the condition of the cells as well as from the amount of opsonin present. They conclude that in disease there may be variations in phagocytic power that are distinct from variations in the amount of opsonin. Further, the evidence of their experiments tends to confirm the opinion of Drs. Muir and Martin, that immune serum contains a specific opsonin that is thermostable and a normal opsonin that is thermolabile. The last is non-specific and can be removed from blood by melanin. They also express the view that opsonin is very finely particulate matter and its effect mechanical. All these points have great theoretical interest. The homœopathist, however, is above all a practical person, and to him the experiments of Dr. Latham commented on by the *Lancet* in a recent leading article will be of more moment. Dr. Latham has discovered, what every homœopathist has known for years, that vaccines (nosodes, in fact) can be given efficiently by the mouth. He gives them in horse serum or normal salt solution and records definite results on the opsonic index after a dose of 1-20,000 of a milligramme of Tuberculin T. R. Dr. Latham gives the doses on an empty stomach, and preferably the first thing in the morning, and repeats them according to results. This represents a great advance on previous allopathic nosode treatment. The dose is even now unnecessarily large, but it has shown so satisfactory a tendency to diminish (going from 1-400 or 1-20,000 of a milligramme, while opsonic results have been claimed for injections of 1-1,000,000), that we may hope to see it fall further. In any case the 1-20,000 of a milligramme is infinitesimal enough to concede the principle. Besides, it must be remembered that the effect of this dose in raising the index depends on its previous absorption into the blood and its conveyance to the tissues (whichever they are) that produce the opsonin. This means a further dilution of the dose in the blood stream, which carries our orthodox friends into very perilous regions. The source of opsonin is a matter of great interest. Dr. Dudgeon and Dr. Shattock believe the leucocyte makes the opsonin. Sir A. E. Wright, I believe, thinks it comes from the subcutaneous tissues, and holding this view he naturally believes injection the preferable method, as bringing the stimulus directly to the place of production. Dr. Latham's results, however, and those of homœopathists, render Sir A. E. Wright's theory doubtful. In conjunction with

my friend the late Captain Meakin, I made a few experiments by giving injections of tuberculin into a limb wherein the venous circulation was temporarily hindered, the idea being to hold the tuberculin back as long as possible in the subcutaneous tissues. We could never satisfy ourselves that we got any higher rises of the index from this method than from ordinary injections. Of course, many other factors may be imagined that prevent such experiments from being conclusive, but as far as they go they tell against the subcutaneous origin of opsonin. Meantime, pending more conclusive investigations, all homœopathists can rejoice to see the nosode treatment advancing so cheerfully among the high priests of the orthodox.—*Homœopathic World*, July 1, 1908.

THE OLD STORY AGAIN.—The *Medical Summary*, an allopathic journal, editorially relates the oft told tale of the death of George Washington. He was taken ill with what would be commonly termed "a cold on the chest." He had a servant bleed him, but Mrs. Martha Washington very sensibly put a stop to it, and then—very something else—sent for a doctor. That gentleman came bustling in and "the patient was given a good bleeding once more." Getting no better from this proceeding and the "dosing," consulting physicians were called in and the patient was "given another good bleeding" until no more blood would run, and then given calomel and tartar emetic in the "usual doses." He died. The *Summary* concludes with the observation: "The practice of medicine is not to-day what we would all like to see it, but when we compare and contrast it with the atrocities of two hundred years ago we feel that medical skill has at least made some strides." Dr. Samuel Hahnemann was the first prominent physician to strongly condemn this "atrocious" as the *Summary* calls it. In reply the medical authorities of the day said that not to bleed a patient in such conditions was to be guilty of "passive murder." An ugly charge for a doctor to face alone, but with homœopathy Hahnemann faced it. To-day they do not charge him with passive murder, but merely with "quackery." But "this, too, will pass."

After getting through with Washington the *Summary* writes of "Calomel for Babies." "The writer always associated a good deal of stigma with the mercurials and the mild chloride in particular until he learned to use them judiciously. Physicians are prone to unconsciously share the superstitions and misinformation entertained by the laity." So it was the superstition of the laity that caused the wreck of countless thousands of human beings with calomel, was it? Wouldn't it be more Christian for the allopath to confess "I have sinned" rather than to say "the laity did lead me astray?" To-day there are many more strayings that some day must be confessed. Whether some one else will be blamed or the simple truth confessed remains for the future to decide.—*Homœopathic Envoy*.

REMINISCENCES.—Read at the 50th anniversary of the Homœopathic Medical Society of the County of New York, by J. McE. Wetmore, M. D., New York. This society was founded in 1857, just at my entrance into medical practice. In 1828—29 years before, there was only one homœopathic physician in New York (except Dr. H. D. Gram, who had to come from Germany, the first to bring with him the ideas of Hahnemann to this country) viz. Dr. John E. Gray.

In 1857 there were in New York City 93 converts to homœopathy amongst the physicians, 53 of whom met to found the Homœopathic Medical Society of the County of New York.

Amongst those were the two earliest converts—Dr. John F. Gray and Dr. Abraham D. Wilson, the latter having been convinced by Gram in 1829.

Next in order of conversion were: Dr. S. R. Kirby, in 1832 or 1833; Dr. A. Gerald Hull, in 1833; Dr. S. B. Barlow, in 1837; Dr. A. S. Ball, in 1838; Dr. Alfred Freeman, in 1839; Dr. B. F. Bowers, in 1839; Dr. Clark Wright, in 1839; Dr. John A. McVickar, in 1841; Dr. George E. Belcher, in 1844; Dr. E. Bayard, in 1845; Dr. Lewis Hallock, in 1846.

Of all the 53 I remember well about 35. All that remain alive at present are four, viz: Drs. Jared G. Baldwin, Miles Palmer, E. P. Fowler and John McE. Wetmore.

As one educated in an allopathic college and interne of Bellevue Hospital, I was previously on terms of more or less intimacy with the leaders of the profession. Earnestly desirous to learn all that was good and true in medicine, I was astonished at the general therapeutical skepticism so openly and frequently expressed by these men who yet treated the sick with drugs. It was evident that the old physic was dying out with the advance of better knowledge and the power, though unconfessed and bitterly opposed, of Hahnemann's teaching.

A few soldiers of the Old Guard, such as Isaac Wood, John T. Francis, Joseph M. Smith and Thomas Coek, still held to "bleeding, calomel and opium" as the real reliances of medicine, but the rising generation sneered at them and were earnestly hoping for better, more certain and less barbarous therapeutical means and methods.

However, instead of being received with open arms, the early homœopathists were laughed at, then insulted and persecuted. Willingly giving up lucrative practices for the truth they believed they had found, and struggling under every obloquy their former confreres could heap upon them, they now organized for defence. From this time, becoming a recognized school of medicine, we have of ourselves been able to form societies and found colleges and hospitals of our own.

And times have changed. No longer is Hahnemann vituperated. His ideas are somehow pervading all medical thought and reasoning, but what with the attractiveness of the opened fields of study in the related branches of science, the revelations of modern physiology and pathology, the wonders of the microscope, the magic of modern chemistry and the precision and surety of modern surgery, medicine, in the mass of the profession, has become a neglected and almost despised thing. Is it to be so always? Will you younger men say with Osler "He is the best doctor who knows the worthlessness of most medicines?" Or will you rise in your might and carry on the great work begun by us, the founders of this, your society—to establish upon the basis of Hahnemann's great law a true science of therapeutics?—*N. A. Jour. of Hom.*

MALARIA OFFICINALIS.—This new candidate for febrile honors bids fair to become the most valuable addition to our *Materia Medica* which the present decade has furnished. So far as the provings and verifications

go, it seems to hold the same relation to suppressed chronic malaria that cinchona does to acute.

It is in the constitution impregnated with miasms of psora, syphilis, tuberculosis or syphilis that drug suppression is so fatal, and here the records show this remedy to be very effective. Where hitherto we have had to zig-zag a cure with sulphur and other antipsoric remedies this appears to go to the bottom and removes the cause *de nova*. Psoric or tubercular chills and fever—outburst of psora or tuberculosis under the so-called popular name La Grippe, when the attendant is hard pressed for a diagnosis—may here find its similar. Also those occasional epidemics of fever in dry seasons, where, as in Kansas and Missouri, in 1898, this remedy appeared to be the genius epidemicus. The symptomatology may be found in the transactions of the International Hahnemannian Association.—*Notes from Lectures by H. C. Allen.*

PYROGEN.—I have found this remedy invaluable in fevers of septic origin, all forms; when Bap., Ech., Rhus or the best selected remedy fails to relieve or permanently improve, study Pyrogen.

The bed feels hard (Arn.); parts lain on feel sore and bruised (Bapt.); rapid decubitis (Carb. ac.); of septic origin.

Chill:—begins in the back between scapula, severe general coldness of bones and extremities.

Heat: Sudden, skin dry and burning; pulse rapid, small, wiry, 140-170; temp. 103-106°.

Sweat: Cold, clammy, profuse, often offensive, generally exhausting.

Pulse abnormally rapid, out of all proportion to temperature (Lil.).

In septic fevers, especially puerperal, where foetus or secundines have been retained, decomposed; foetus dead for days, black; horribly offensive discharge.

When patient says: "Never been well" since septic fever, or abortion, or a bad confinement.

To arouse vital activity of uterus and enable it to expel its contents.—*Notes from Lectures by H. C. Allen.*

THE MODERN TREATMENT OF PNEUMONIA.—By slow degrees our friends who "differ from us upon a point of therapeutics" are beginning to discover that Hahnemann and his followers are right when they insist on the necessity of treating symptoms in disease. As noted already, Dr. Eustace Smith confesses this, and now we have a plea for symptomatic treatment from Dr. Samuel West in the same number of the *British Medical Journal*. This advice was given in a clinical lecture delivered at St. Bartholomew's Hospital on "The Treatment of Pneumonia." Having reviewed the various methods of treating the disease with a view to killing or expelling the pneumococcus, and having confessed their failure, notably that of the last of them—serum-therapy—Dr. West appeared in turn in despair, from vain efforts to treat the disease, to the patient, and proposed to treat him—not without an apology to those who would exclaim at so unscientific a proceeding. Dr. West's words are worth quoting. After remarking that there is no serum treatment for pneumonia, he says: "We have, therefore, now to turn to the patient himself. That treatment is called symptomatic. Symptomatic treatment is often spoken of disparagingly, but, after all, if you cannot treat the disease you may as well treat

the patient; and if you save your patient, it does not matter whether you have been treating the disease or not." After this wise decision, we regret to find that treating the patient resolved into little more than good nursing, with the occasional administration of strychnine or digitalis, and the use of a few leeches to relieve pain. Nevertheless we hail this tardy acknowledgment of the need for systematic treatment of patients, which homœopaths have insisted on for a century past, as an important advance in therapeutic knowledge, and, if generally accepted, likely to pave the way for the reception of the fact of the law of similars, though perhaps under another name.—*British Homœopathic Review*.

COW INJECTIONS OF TUBERCULIN.—The sudden activity of the Health Department (started by a city newspaper) in regard to milk has resulted in many desirable improvements in the milk supply of Chicago. Dairies have been renovated, stores cleaned up and the sanitary surroundings of the cows improved. So far good, but reformers are apt to go to extremes and sometimes display an unwise activity, that in the end defeats its own purpose.

It is now proposed to test the condition of all cows by injections of tuberculinum. We doubt not that many innocent cows will be condemned by this test. In any case it will work unnecessary hardships for milk dealers and dairymen. Some will be driven out of business, some will suffer loss, and the inevitable result will be a greater evil than the ordinary risks of impure milk. The business will be driven into the hands of the few large concerns who have capital enough to meet the requirements, and the consumer, mostly the poor and the very poor, will be compelled to make up all temporary losses by paying a fancy price for one of the necessities of life.

The Health Department, with its uniformed doctors, and its appeals to the public, strikes one as somewhat theatrical and fearful lest its officers should not be duly appreciated. Some thought should be devoted to the following query: Which is better, to deprive thousands of people from obtaining good, ordinary milk, by striving after an unattainable ideal, or by moderate and reasonable regulations to improve the quality of milk without working hardships to any class of people. Even after the utmost efforts many babies will continue to be killed every year by the decomposition of this exceptionally fine milk caused by contact with foul rubber nipples, or lack of care in keeping the milk and by lack of cleanliness in milk bottles and nursing bottles.

In regard to the cow tuberculosis Koch, the high priest of the subject has said that it is incommunicable to the human species, and yet the Health Departments are going to out-Koch Koch in the matter.—Dr. J. B. S. King in *The Medical Advance*.

MEDORRHINUM IN PSORIASIS.—By Chas. Alvin Gardner. Among the members of the homœopathic profession, there have been and are still many who are prejudiced against the use of the nosodes because "they are such dirty things." Of course these do not represent the working body of homœopaths, as even the allopaths are using the same things in their modern serum therapy. Here is one of the many cases cured with a nosode as the result of the application of Hahnemann's law of similars; not be-

cause of any pre-existing infection of the disease from which the nosode is made.

J. S., colored, age 10, has been suffering for some time with psoriasis covering nearly the entire scalp and destroying the hair. After thorough and diligent questioning nothing distinctive was obtained until the mother said: "He always sleeps in the knee-chest position." This is a very peculiar and individualizing symptom, and Medorrhinum 1m was prescribed on August 13th.

August 27th.—Improvement slight; Medorrhinum was repeated, 10m.

September 3rd.—Marked improvement. The eruption was very much better and the patient no longer slept in the knee-chest position. No medicine given.

September 17th.—Still improving, hair coming in. Eruption only slight and scaly. No medicine. The patient was seen on October 8, November 22, and December 6, with the continuing improvement. Patient discharged cured December 6th.

This patient had but two doses of medicine, one August 13th and the other August 27th, and it is needless to add that no local application was used. In this case no history of previous gonorrheal infection could be found in father or mother.—*The Hering Quarterly*.

THE MINUTE IN MEDICINE.—Of all the difficulties with which the practice of homœopathy has had to contend probably the most serious has been the reputed "small dose." This has seemed most difficult to the layman to understand, while even our medical brethren have viewed it with some scepticism. But it seems that each new discovery in medicine emphasizes the power of small things. The material force in vaccine or anti-toxin serum is scarcely discernable by the most delicate chemical tests. Science has not yet computed with a finite scale, the powerful effects of the invisible X-ray, nor given us an accurate estimate of the potency of the impalpable emanations from the silent radium. And now comes the discovery of the wonderful effects from the indeterminate opsonins—those invisible condiments that make the poisonous germs delectable to the protecting phagocyte. Mayhap the day is not far distant when the small dose of the homœopathic drug will also be recognized as a positive force by the carping materialist of the "old school," and this imaginary obstacle in the way of the universal recognition of the law of "Similia" will be surmounted.—*N. A. Jour. of Hom.*

THE PREPARATION OF VACCINES.—Scott C. Runnels, M. D., Ann Arbor, Mich. From the Laboratories of the Homœopathic Hospital of the University of Michigan. The most important point in the opsonic treatment of a case is the securing of a proper vaccine. The requisites for a good vaccine are four:

1st. The toxine of the vaccine must be as nearly identical with the toxin of the organism infecting the case to be treated, as possible.

2d. All germ life must be destroyed.

3d. The vaccine must be put up in such a manner as to be incapable of infection.

4th. The vaccine must be in such a form, and be made up of such ingredients as to be least objectionable when administered.

The first of these requirements has two essentials: the retention of the toxin of the culture, which has been isolated, during the manipulations of preparing the vaccine, and the securing of a culture whose toxin is as similar as possible to that of the infecting organism. This last point will be reserved for later discussion and for the purposes of this paper the toxin in the culture tubes will be accepted as identical with the pathogenic toxin.

The present methods of vaccine preparation are open to criticism, in that the vaccine, in the attempt to be sufficiently sterilized, is partially robbed of its toxic value, since heat is destructive of the toxalbumins. Further, heating to 60° C, is not an absolutely sure method of sterilization. Even with the organisms of such easy sterilizability as are commonly met with in opsonic work, it is no uncommon thing to discover an imperfectly sterilized vaccine by the physiological test, and cases are on record where even this precaution has not proved sufficient. Sterilization by antiseptics, to obviate this difficulty, has been deemed impracticable as the antiseptic, if strong enough to be sufficient, would cause irritation, at least, in the tissues into which it was injected. So that the vaccine, notwithstanding its practical utility, is a product far from perfect. . . .

—*Medical Century*.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

THE TREATMENT OF TUBERCULOSIS BY THE SERUM OF DENYS. By Dr. P. Jousset, of Paris. "The dilutions of this serum employed by Jousset, are made on the decimal and centesimal scales, such as are required in homœopathy. The smallest doses of our opponents correspond to the 3 and 4 centesimal dilutions or to the 6 and 8 decimal."

For cases with fever, Dr. Jousset commences with the 6-x dilutions. In certain patients the fever increases even after these weak injections of the 6th, and the aggravation has led this authority to prepare dilutions of the 12th and 30th centesimal.—*Journal Belge d'Homœopathie*.

THE DEVELOPMENT OF MEDICAL SCIENCES AND DYNAMISM. By Dr. Raimundo Comet Fargas, de Barcelona, Spain. Few men that I know, would have approached the subject of dynamism with so much enthusiasm and ability as Dr. Comet Fargas, uncompromising defender of the law of Similars. In his interesting brochure on the Advancement of the Medical Sciences and Dynamism, this Spanish author gives us the whole history of medicine and its progress, since the most remote times. He compares the different epochs, and analyzes the life of Hahnemann, as well as his doctrines and labors with exquisite discernment and appreciation of his claims; and the manner in which he has accomplished this task amply demonstrate his faith in the school he has embraced and defends.

The chapters on the Preservation and Loss of Energy, the States of Matter, and especially on the doctrine of Ionisation, are subjects handled with rare simplicity and competence.

No less creditable to him is the just appreciation he makes of the most modern ideas in regard to drugs and their action.

Dr. Comet Fargas is not only the editor of the *Revista de Medicina Pura*, de Barcelona, but the author of a manual of Homœopathic Therapeutics, and of a domestic practice entitled "Vida."

SUPPURATIVE ALBUMINURIA OF PREGNANT WOMEN. Dr. Pinart, of Barcelona, editor of the *Revista Homeopatica*, has presented to us an interesting study of the above subject. He states that besides the albuminuria of Bright's disease and pregnancy, there is yet another variety of albuminuria produced by suppuration in the pregnant woman. Patients suffering from this trouble show an excess of albumin out of proportion with the general symptoms, which are insignificant. There is no œdema or gastric troubles, and the placental lesions are slight or absent. The chief symptoms are observed in the urinary organs, and of these, the constant urging to void urine, which is profuse and purulent, is the leading phenomena. As this affection is due to a compression, exerted by the fœtus on the kidney, compression which provokes the development of old lesions of this organ, the treatment should be different. To prevent the compression, *Pulsatilla* and *Apis* should be administered in alternation; then to combat the suppuration of the kidney, *Hepar* and *Silica*. If these remedies do not produce any amelioration, we should resort to *Lachesis* and *Phosphorus*.

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THE MISSION OF HOMOEOPATHY.

The Presidential Address Delivered Before the American Institute of Homœopathy
at Kansas City, June, 1908.

BY

ROYAL S. COPELAND, A. M., M. D., ANN ARBOR, MICHIGAN.

THIS is a time when almost every passing day chronicles the birth of a new system of medical treatment. Most of these, it is true, are rather systems of applied philosophy or theology than of material therapeutics, but each is a protest against the existing order in medicine. Among laymen there is a widespread distrust of present methods of dealing with disease. There can be no other explanation for the abandonment of old methods. Man does not really depart from the practices of a life time, and caprice, alone, would hardly account for this wholesale defection. Naturally one inquires regarding the attitude of the profession itself. What is the feeling among medical practitioners? Is there perfect confidence and assurance here, or is the uneasiness of the laity simply the reflection of a similar state of the professional mind?

The truth is, among physicians of the allopathic school there is abundant evidence of an almost absolute loss of respect for drugs and their therapeutic value. No longer does the practitioner pin his faith to remedies which for time out of mind have been depended upon in this or that disease. Osler, the head and shoulders of the dominant school, says, "He is the best doctor who knows the worthlessness of most medicines."

"Throw physic to the dogs," is the almost universal cry of the old school medical men. Agnosticism is the attitude of that profession toward all therapeutic procedure. Only recently a prominent allopathic neurologist in one of the large cities of the continent stated to your speaker: "I am an honest man, trying to help my patients, and there is nothing, absolutely nothing in our materia medica to give a ray of hope to the afflicted. I am helpless as a babe in the presence of disease, and feel myself to be a useless barnacle on the hull of society."

The Failure of Sanitation and Surgery.

Whence comes this lack of lay and professional belief in drugs? Why should men turn away from the established school, seeking cures elsewhere for their ailments? Is this revolution justified? Let us examine the records and see what is the state of things. Is disease just as fatal, perhaps more fatal, than formerly? Is human suffering less by reason of the seeming advances in sanitation, surgery and therapeutics?

In sanitation, for instance, there is a far flung battle line. No more do men trust in reeking tube and iron shard. Sanitation is not now a matter of foul smelling disinfectants. It is a technical, scientific attack upon the essential causes of disease. The nation, the state, the municipality, even the rural communities, are insistent upon the active observance of sanitary rules. The inspector, with equal foot, visits the capitol and the cabin, the palace and the pig-sty, the skyscraper and the adobe. Nothing escapes his watchful eye. With test tube and microscope, with culture medium and incubator, with guinea-pig and rabbit, with all the paraphernalia of modern science, he searches out the causes of disease and recommends methods to avoid them. The flea, the fly, the tick, the rat, the mosquito and the family cat are in turn the objects of his displeasure. Commissions without number have instituted successful search into the nature and hiding places of the foes of humanity. Undoubtedly, mankind has benefited materially by these labors. Many regions of the earth, heretofore uninhabitable by any except the immune, are now safe dwelling places for all. Most of the plagues and epidemics of older times are now, in all probability, purely historical. Mankind, consequently, is under great debt to the many departments of science devoted to sanitation, even though the full measure

of the debt may be indefinitely less than the enthusiastic claims of the laboratory. Of this more may be said later.

Since the days of Lister, surgery has taken huge strides in results and popularity. Hospitals, a few years ago places to be dreaded and avoided, have become more numerous, and are crowded to the doors with patients seeking attention largely on the surgical side. Not an organ of the body and hardly an affection now is excluded from the surgeon's field. With waning interest in medicine and purely medicinal treatment, the profession and laity have turned to surgery. There is something appealing and fascinating in the thought of a brief surgical operation and convalescence, with immediate escape from long time pain. Why suffer the delay and ultimate disappointment of medical treatment, when the surgeon can so easily end both? Thus the surgeon waxes rich, the hospital accounting is to the good, and the old-time family physician, like "Dr. MacLure," is known only as a character in fiction.

If, by sanitary and surgical procedure, disease is not only shortened, but longevity promoted, and human existence sweetened, it were unwise to utter protest against the present trend in medicine. But the wise man will "take stock" occasionally to see if he is really thus enriched. Let us to-night examine the situation and determine if it be one to face with joy or to face with anxiety.

The most encouraging results of human effort to wipe out disease and to promote longevity have been accomplished in the extremes of life. Thousands of babies have been kept alive who most certainly would have died except for increased medical knowledge. Frail, puny, immature infants, formerly the easy victims of any infection, are so guarded that they pass the danger line and safely reach an age and development capable of self-support. So too, the very old are warned against over-active physical exertion, and so directed as to food, drink, surroundings and exercise, as to live beyond the old-time expectancy. Not so roseate, however, is the prospect of the middle stage of existence. Indeed, if statistics are worth anything, the outlook is gloomy and discouraging. Stevenson says the individual who expects to live but a week, should be just as cheerful and active as if he were expecting to live a hundred years. A member of this body does not share Stevenson's optimistic spirit. This doctor says that he is in constant dread that old Death, armed with a club, is lurking just around the

corner, ready to beat out his brains and end his medical career. Were our friend to study the United States Census Report for 1902, he would find material to justify his fears, and he might come to feel that the patient, as well as the doctor, is not as safe, excluding age itself, as he was even ten years ago.

Disease Becoming More Fatal.

As compared with the death losses of 1890, in the United States, the losses per hundred thousand in 1900 had enormously increased as regards certain diseases. Pneumonia, for instance, reaped 1,107 more deaths in every hundred thousand cases than ten years previously; heart disease, 1,328 more; kidney disease, 1,222 more; apoplexy, 806 more; diseases of the stomach, 338 more; diabetes, 164 more; cancer, 634 more. The increase of fatal cases of cancer in this country and all over the world is terrifying. In 1900, of reported deaths, thirty thousand people died from this dread disease in the United States. Probably, if the truth were known, more than fifty thousand persons departed this life as the direct result of cancer in 1907.

Arthur W. Mayo, late president of the International Congress of Surgery, in his recent book on "Cancer of the Stomach," is authority for some facts regarding the marked increase in the mortality from cancer. He says: "In England during the last thirty years the recorded death rate from cancer has nearly doubled, while in America it has almost been trebled. Doubtless this may be partly due to greater accuracy in diagnosis, for the increase has been largely recorded in the internal organs and much less accessible parts. But, as stated by Dr. Roger Williams, there has not only been uniformity in the varieties of the increment in the long accession of years, but the increase has involved all parts of the body without material alteration in the normal proportionate ratios; moreover the increase has been recorded in most civilized countries."

For the sake of our present discussion, it is granted that some diseases are being reduced in number of cases and in severity by modern methods of treatment. For instance, tuberculosis, in its incipency, is undoubtedly curable, or apparently so, by the present day system of rest, feeding, and out-of-door life. From personal inspection of most of the public, and many of the private sanatoria of America, your speaker is fully con-

vinced of the value of the Trudeau system. Without the added aid of internal medication, the natural methods are certainly accomplishing much for humanity in its fight against the white plague. The universal testimony of the physicians in charge of these institutions is that medicines are never given, except, of course, for acute or intervening disease. The significance of this fact will later appear.

There is small wonder that the medical man, the sociologist, the philanthropist, the statesman, and the humanitarian should join hands in the great crusade against tuberculosis. The results of treatment in this disease are in such marked contrast to the usual effects of medical treatment that naturally they must attract wide and favorable comment. There is always more acclaim over one victory in a losing war than over a dozen fruitless battles. It was ever thus. We have heard, indeed, that "joy shall be in heaven over one sinner that repenteth, more than over ninety and nine just persons which need no repentance." No wonder a profession, counted among the learned callings, with its garments threadbare and its granaries empty, shall rejoice that in its barren acres is this one splendid field! We rejoice, too, and, with all mankind, join in the pean of praise and thanksgiving.

The curability of diphtheria by neutralizing the toxins of the causal germ is a second monument to scientific genius. There are those, of course, who still object to the use of antitoxin, and insist that it is harmful rather than beneficial. Personally, your speaker, at the risk of possible criticism from within the sound of his voice, states as his conviction that von Behring's gift to humanity is of inestimable value. However, he wishes, in the same breath, to declare that the effect cannot be explained as dynamic or therapeutic, in the true sense, but it is simply a wise use of chemistry almost as elementary as the administration of an alkali to neutralize an acid.

Let us turn a moment to another disease thought to be more or less under control of the modern laboratory methods, viz., typhoid fever. Regarding this disease a recent writer has said: "In spite of all that is being done to purify water supplies and correct other means of conveyance of typhoid infection, in 1900 there were 3,405 deaths from this disease per 100,000, against 3,216 for 1890, an increase of 189. It is my personal conviction, based upon observation and reports in medical jour-

nals," this writer says, "that typhoid fever has been more prevalent for the past eighteen months than it was when the statistics embodied in the last census reports were gathered." Simon Flexner, the Rockefeller Institute investigator, reports a case where for a half century a patient, supposedly cured of typhoid fever, was nothing more nor less than a culture medium for typhoid bacilli. During all these years he spread and disseminated this dread disease. Another writer, George Dean, of the Lister Institute, in a March number of the *British Medical Journal*, tells of a similar case where the germs were found in the secretions of the body twenty-nine years after the attack. Forster, of Strassburg, has determined that the normal bile is an excellent medium for the typhoid bacillus and that fully 2 per cent. of typhoid victims, for months or years, are typhoid carriers. Talk about exterminating typhoid! One might as well talk about exterminating rain drops or snow storms!

In this connection, speaking of the dangers from infectious diseases, in a recent number of *Science*, Flexner says: "Perhaps the chief single compelling phenomenon is that of the microbe carrier, who is everywhere coming to be regarded as a serious menace to the health of communities. He is not a new discovery, for, as regards diphtheria, he has been known for more than a decade. But now he has been found to disseminate, not only typhoid fever, but also dysentery, plague, cholera, influenza, spinal meningitis, and, in certain localities, a host of protozoan diseases. Moreover, he is not, like the victim of tuberculosis, who is also a microbe carrier, a sufferer from the disease which he disseminates; he is, as a rule, immune to the microbes in an actual sense and is usually ignorant of the sinister role that he plays in life." Flexner recites instances of long persistence of disease producing microbes, not only of typhoid fever, but also of other dread conditions. Plague germs, for instance, have persisted seventy-six days after recovery; influenza bacilli have been found in the sputum a whole year after the attack.

With all these facts before us, the outlook is indeed gloomy. In spite of all that sanitation has done and may yet accomplish; in spite of all the marvellous results of surgery—the acme of which must soon be attained—in spite of all the modern methods of nursing and general management of the patient, disease is rampant; each year more prevalent and more fatal. Is there no help for the sons of men? Must we sit in idleness and with

folded hands accept the inevitable as merely the execution of heaven's relentless verdict?

The Reason for Therapeutic Failure.

Before suggesting a remedy for the lamentable state of affairs, perhaps, analyze the figures and offer some reasons for these discouraging statistics.

For a decade we have bowed down and worshipped the laboratory. The physiologist, the pathologist, the histologist, the embryologist, the bacteriologist, the physicist, and the chemist have been placed upon a pedestal, demanding the homage of the nations. Your speaker takes second place to no man in his admiration of and respect for these scientists, and belief in their labors. They have faced myriads of problems, and, to the satisfaction and betterment of mankind, have solved them, one by one. As Achilles dragged the body of Hector at his chariot wheel, so has the modern scientist subjugated the unwilling mysteries of life.

Regardless of our interest in all this fascinating research, a proper proportion must be maintained. The conclusions of the experimental laboratories must not blind us to the fact that the human cell may not react in the same manner, and the laboratory of life itself may force a different conclusion. In the language of Duckworth: "The clinician is always in the face of the *personal factor* in each patient. The physiologist has a dog, or a guinea pig, or some definite organ of an animal, but rarely a man before him. The problems are not the same, and never can be. The personal factor, then, demands careful study from the physician, for men and women are not so many wooden nine-pins turned in a lathe as some would have us believe. . . . A very little consideration makes it clear that this is not true, and multitudes of instances at once disprove this view which is evolved in the laboratory of the physiologist and contradicted at the bedside."

The laboratory idea has run rife. Much of scientific value has been discovered, but all is yet too new, too unassimilated, to be of value to the practitioner. It is of no interest to the patient to be assured that this or that germ is the cause of his trouble, that this or that pathological change has occurred in his tissues. What he wants to know is, what will cure him? The *argumentum ad hominem* is: *What can you do for me?*

The general profession is rich in scientific theory, but, speak-

ing now of the allopathic branch, poor in remedial resource. Among the laity there is, in spite of Collier's attacks, an increasing use of patent medicines. Quinine and opium are imported in large quantities, and the annual consumption of drugs is estimated by a conservative statistician at about two gallons, exclusive of liquors and cordials, for every man, woman and child in the United States! Probably a large percentage of the increase in heart disease may be attributed to the pernicious habit of using headache powders. Likewise, many of the deaths in pneumonia are doubtless the result of cardiac depression following the use of antipyretics. Even some educated doctors are still antediluvian enough to think "the fever must be broken," to quote the antiquated language of olden days. All drugs used for their physiological effects to slow the heart's action and reduce fever are, in the opinion of your speaker, harmful alway, dangerous often, and fatal not infrequently.

The Hopelessness of Allopathy.

Conservative and observant physicians of the old school have come to recognize these malevolent results of drugs. Naturally, they have lost confidence in them and a large number have practically abandoned therapeutics. This lack of confidence in drugs, added to almost reverential devotion to the laboratory ideas, has developed the Osler school of medical practice. Its slogan, as we have said, is: "He is the best doctor who knows the worthlessness of most medicines." The practice of medicine with most followers of this thought is a chase after scientific facts. The game is won by a careful record of the onset, course and effects of the disease, by a study of the bacteriological peculiarities of the attack, by a systemic examination of the secretions and excretions, and, finally, by a radical post-mortem examination to confirm the ante-mortem conclusions.

Your speaker does not wish to be unfair. He does not include in this class the majority of practitioners by any means. He respects and admires many of the other profession who are known to him as honest, conscientious men and women. In common with your speaker these join in protest against the present day trend. Take the language of Sir Dyce Duckworth, of London, for instance. In speaking before the Faculty of Medicine in Paris, four months ago, Sir Dyce said:

"We are, I much fear, suffering in these days from a widely spread spirit of incredulity, timidity, and hopelessness in the

whole realm of therapeutics. We spend much time in cultivating elaborate diagnosis, and this is quite right, but we grievously neglect our main business of healers and mitigators of disease. Our knowledge of the *materia medica* has declined out of all proportion to that gained by the progress of bacteriology which claims to supersede the older therapeutical art. It will never supersede it, for there are, as Sir William Jenner said, but two great questions to be answered at the bedside of a sick man—what is the matter with him? and what will do him good? Are we not too apt to-day to forget the second question, to experiment with synthetical novelties, and to forget the old long-approved remedies? In short, are we not, as physicians, slowly drifting into the position of abstract scientists and gradually losing our proper relation to the sick as skilled medical artists?"

The Mission of Homœopathy.

Were the subject ended here, your speaker would be counted an iconoclast, and the discussion fruitless. But it need not rest at this point, as we shall see.

There once lived a physician whose contemporaries differed from ours. His confreres, unlike ours, had faith, at least their works indicated a living and riotous faith, in drugs. Huge boluses, horrid concoctions, vile mixtures, and impossible combinations were the rule. No matter what form the prescription took, however, there was consistency at least in this, that each dose carried a gigantic amount of drug substance. In protest against these massive doses, this physician of whom we speak, proposed a single remedy, to be administered according to a certain law, in such quantity and form as to be at once assimilated by the system of the patient. Dissension and argument followed his pronouncement. Anger, vilification, ostracism, and banishment ensued. But the seed was sown, and, the grateful tears of the healed watering the soil, the plant came to full leaf and vigor.

The times and the seasons have changed. Now the profession, the same old profession in spite of renewals in lock, stock, and barrel, has come to discard, not only the crude drugs of a century ago, but practically all internal medication. The pendulum has swung to the other side of the arc. But if Duckworth's warning is heeded, if this scientifically acute, but practically obtuse profession will but take its eye from the

microscope and raise its head from the research table, it will see that the shrub of homœopathic therapeutics, so thrifty a hundred years ago, has now grown into a giant oak. Within its sheltering shade is room for all the tribes of men who seek the balm of healing.

It must be conceded that the dominant school can lay no claim to therapeutic possession. No matter what its need of praise, at least it can expect nothing in this direction. It should not resent, therefore, the claims of another for that which it does not itself possess, and upon which it places no value. Disclaiming monopolistic views as regards the law of similars, having at heart the highest good of the race, and only this, and looking upon the acceptance of our proven theories as the world's hope for the cure of disease, we must be forgiven. If, as a profession, we stand aloof from the non-therapeutic practice. There may be greater misfortune in this life than discord and dissension. The sword is sometimes more a blessing than peace at any price. The mission of Homœopathy cannot be fulfilled until the theory of similars is accepted as the therapeutic law. We have no quarrel with the other school simply because of our differences in belief. We concede to all the privilege to think and form conclusions. We claim a like privilege.

Our observation of the careful proving of drugs, of the scientifically accurate *materia medica*, and of the daily results of its application, absolutely confirm our belief in the universality of the law of cure. Therefore, to set aside this conviction would be to surrender a moral principle, and to give up the secret of therapeutic success. We insist that the medical profession ought not to be a political machine, a close corporation to be kept in perfect working order, a great organization consisting of orders and degrees, with national, state, district, county and local branches, having no ostensible reason for existence except to control legislation, regulate prices, dictate terms and methods for the treatment of the poor, and to seek the balance of power in party politics.

Truth alone is eternal. Theories change and arguments based upon them fall to earth. Institutions having answered their purpose cease to exist. Governments are fleeting and transitory. Democracy, even, is said to be an experiment. To us it seems as steadfast as did the City of the Seven Hills and the Roman Empire itself to the contemporaries of the Apostle

Paul. But all this has passed away. So it must be with the established order in medicine. An institution which has outlived its usefulness, which has so far lost its cunning as to permit disease to multiply in its very door-yard, which has so failed of its mission as to witness the almost daily birth of a new system of medical thought—such an institution must lose its prestige and deserves no better fate than to pass into innocuous desuetude. In its stead will be adopted another system, a system which has passed a century's probation, and with each year has strengthened its hold upon the minds of the observant.

The Rediscovery of Homœopathy.

Homœopathy was an experiment in Hahnemann's time; it proved its value by the clinical test during the next period; by the present day methods, it has been scientifically proven, both as to the theory of similars and the small dose. Sir A. E. Wright's opsonic work, for example, is but a confirmation or rediscovery of Homœopathy. The results of his research are familiar to every professional listener. Working, for instance, with the germs of pus production, he, too, observed the law of similarity. Taking minute quantities of the toxins of the disease-producing germ, toxins capable of producing symptoms similar to those caused by the germ, he was able to cure the lesions produced thereby. Not only did Wright thus rediscover the law of similars, but also, strange as it may seem, he hit upon the century old conclusion as regards the size of the dose. One ten thousandth of a milligram, equal to the sixth decimal dilution of the homœopathic profession, is the dosage recommended by this scientist. This work is but one example of recent unbiased confirmation of homœopathic claims. Indeed, wherever the allopathic school can point to positive results in therapeutic treatment, these but verify our claims. The opsonic theory of Wright, the anti-tubercular system of von Behring, the mercurial treatment of specific disease, indeed every single therapeutic procedure of proven value in use by the other school, is simply a verification of Hahnemann's theories.

Conclusion.

In Homœopathy, humanity has the priceless secret, the key to the shackles of disease, the relief from the bane of the ages. This has long been the testimony of our own school of prac-

tice, it has occasionally been admitted by a broad-minded and observant man of the other school, and this past twelve months especially has been widely discussed in scientific bodies, and the homœopathic ideas, if not the name, are now practically accepted by the dominant school. In the language of the bright-winged angel of olden days, we "bring you good tidings of great joy, which shall be to all people." In Homœopathy is healing for the nations. With joint ownership in all the marvels of surgery, in all the products of the laboratories, in all that the sciences collateral to medicine have determined—with joint ownership in all these, Homœopathy has been sole possessor of the knowledge of remedial application. When surgery has been helpless, the laboratory impotent, and general science hopelessly at sea, Homœopathy has gone on, serene in the conviction of cures impossible by other methods. Practitioners of our faith are everywhere, our hospitals are increasing in numbers and influence, our asylums, homes, and dispensaries are without end; the records are open and the results of our practice speak for themselves.

But the homœopathic profession has no wish to make selfish use of its knowledge. As the momentary ambassador of this great profession and in the name of Samuel Hahnemann, I freely confer upon all physicians, of all schools, of all creeds and color, of all nationalities and languages, a boon greater than the scalpel or forcep, greater than anæsthetic or anodyne, greater than hypodermic or application, greater than lotion or emollient, the knowledge of the homœopathic materia medica, and the right to use it in its original purity. By authority of his living heirs, I divide with you our inheritance and receive you as sons and daughters, with ourselves, of our father in the faith, Samuel Christian Frederick Hahnemann.

THE MODERN TREATMENT OF PURULENT SALPINGITIS. Atanasecu (Bucharest) says the disease arises in several ways, depending upon the sort of lesion, the nature of the infection and the complications. The treatment therefore varies. It may be stated in general that with the exception of such cases demanding intervention because of danger to life, we should rather wait until the acute symptoms have subsided before operating. Even in chronic suppurative adnexal disease, a course of medical treatment should precede an operation, and should consist in rest, warm irrigation and medical measures, and the case should be operated only when the disease is unaffected by treatment or becomes worse. This view is gaining ground among American operators also.—*Abstr. from Zentralbl. f. Gyn.*, 1908, 94.

A CASE OF DIFFUSE CEREBRAL SCLEROSIS.

BY

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THIS case is reported with considerable detail because, so far as I know, there have been but few cases observed where the cortical involvement was so extensive. The general distribution and severity of the process renders the term "diffuse cerebral sclerosis" more appropriate than the usual "cerebral arterio-sclerosis."

I am indebted to Dr. M. C. Ashley, superintendent of the Middletown State Hospital, for the use of the hospital records, and to Dr. Adolf Meyer, director of the Pathological Institute (New York State hospitals), for the pathological report of the central nervous system.

CLINICAL REPORT.—The patient (A. H., 6066) was admitted to the Middletown State Hospital January 7, 1902.

Family History.—Negative.

Personal History.—A native American of fifty-five; early life probably uneventful; syphilis at the age of twenty; married; has four healthy children. A boatman on the canal until twelve years ago, then ceased regular work (cause not known). Temperate use of alcohol and tobacco.

Onset of Condition.—History of epileptiform attacks for about six years. (No details of the onset.) A year before admission mental symptoms appeared. Much of the time since has appeared confused, did not seem to realize what went on about him. Paid little attention to the family; neglected his work; was indifferent to calls of nature and very untidy in consequence. Became irritable, was easily angered. Once chased his wife with an axe, and again stuck a pitchfork in her back when enraged.

Upon Admission.—In feeble physical condition; gait unsteady (partially from weakness); very marked general arterio-sclerosis; hands and feet cold and blue (circulatory disturbance); tongue tremulous; articulates with difficulty and slurs the words; sleep irregular; constipated. Mentally he was dull and apparently unable to answer questions intelligently; mumbled to himself however; quite confused and inclined to wander about aimlessly.

The clinical diagnosis was epilepsy associated with advanced deterioration.

After admission he improved somewhat in a physical way for some months; grew strong enough to get about quietly, and was prone to do so, wandering aimlessly unless restrained. He had a ravenous appetite. He continued slovenly dress and no improvement in untidy habits was noted. In January, 1903, began to fail physically, and from then on was a bed patient. He began to choke on solid food then, insisted upon feeding himself, although he was very nervous about it. After going to bed he paid absolutely no attention to the care of the bowels or urine. In October, 1903, voice failed after several days of hoarseness (apparently due to a local inflammatory condition), and from then on attempts to articulate were replaced by monotonous, barky sounds that had no semblance to words and which usually grew weaker. In November, 1903, the left arm and hand became weak and often were noticed to be blue and cold without apparent cause. Early in 1904 he had become emaciated and a tendency to form bed sores gave considerable concern. The left arm grew weaker and gradually assumed a rigid position (arm to side, forearm partially flexed, laid across chest, fist clenched). The left leg, too, grew weak and gradually became rigid (in a fully extended position). The circulation was poor in both paralyzed limbs, a difference in temperature was easily detected, and a dusky red color usually seen on the affected side. For about a year he was spoonfed, until October, 1904, because he choked badly on liquid food carefully administered; he was fed by means of the nasal tube. The tube had to be guided into the esophagus by means of the finger, the epiglottis standing wide open at all times and permitting the free entrance of foreign material into the larynx, although violent coughing promptly ensued. The convulsive seizures continued, but were infrequent, one or two a month, and not very typical. There was no staring, slight initial rigidity and "quivering" of all the muscles, followed by winking and a few twitching movements of the limbs, each seizure usually lasting about thirty seconds.

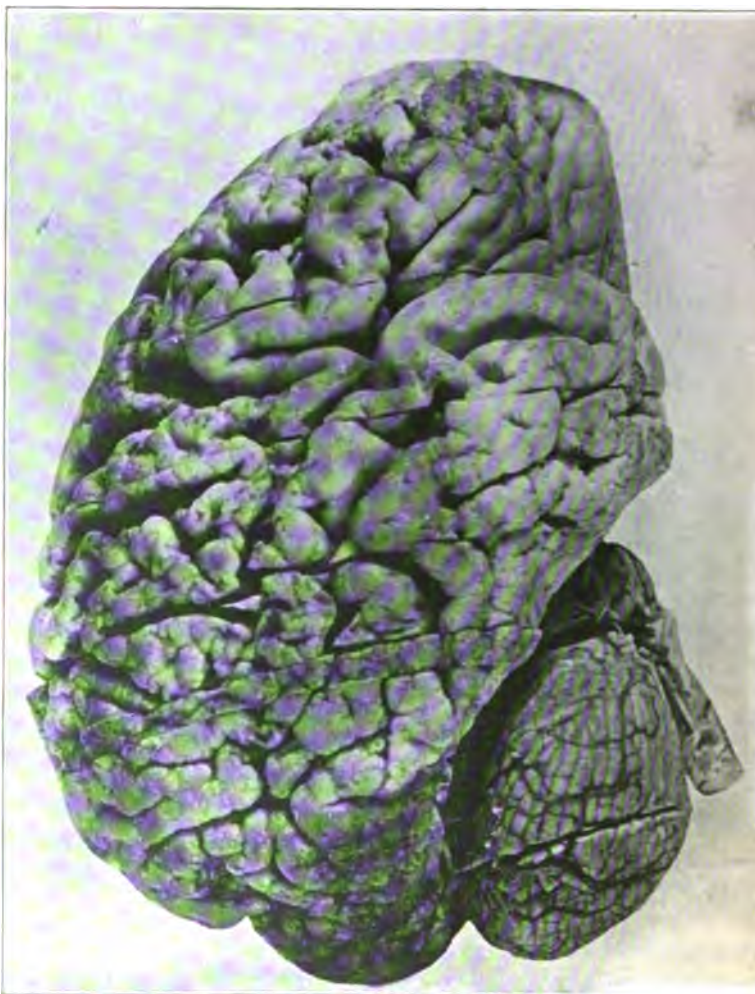
Mental failure was rapid from the time of entrance. At first he would talk a little, gave fragments of his former life. He always was morose and contrary. He never asked about his family, was not concerned about his own welfare and



No. 1.—Top view of the cerebral hemispheres showing the distribution of the peculiar atrophy. The pia stripped away reveals the knobby surface and the small areas of softening.

pects, nor did he seem to care about what was going on either about him or in the outside world. He was invariably opposed to anything in the way of care, always scolded and swore as long as he could speak, and after that depended upon the hoarse bark and a particularly ugly expression to express his disapproval, and in addition he summoned what physical force he had to carry his point. As early as January, 1903, he was so deteriorated that he was unable to tell his own name. After that existence seemed almost purely vegetative. Even when

he grew unable to swallow without choking and tube feeding was resorted to, he did not cease to resist and struggle; two nurses were required to hold him while the third passed the tube, and his attempts to bite the fingers of this one were not



always ineffectual. In December, 1904, he began to choke on the oral secretions which gravitated into the throat. It was hard to keep the throat free because of his resistance. He persisted in lying on his back as he had for months, with his head sharply bent forward. Pneumonia developed and he died December 15, 1904.

Anatomical Findings, in Summary.—At the autopsy, twelve hours later, the body was found to be much emaciated; skin dry and scaly; sacral decubitus, and the muscular contractions described above.

Nervous System.—The skull cap is thick and the dura much adhered to it, more than usually adherent to the pia. The pia is irregularly thickened and opaque, especially over the cerebrum, where it partially concealed the cortex. In general it



No. 3.—Photograph of a transverse slice of the cerebrum. In this region the destruction is found chiefly on the superior surface.

tears up quite readily except over the areas of acute degeneration where the superficial layers of cortex come with it. The larger vessels at the base show a diffuse thickening of their walls with occasional sclerotic patches. The larger pial vessels (especially those in the frontal and parietal regions) are thickened, whitish, and roll distinctly under the finger. Pia unusually edematous, especially in the frontal and parietal regions.

The brain is of a fair size. The cerebral hemispheres pre-

sent a most remarkable appearance. Most of the convolutions show a knobby, cauliflower-like atrophy. While this varies a little, both sides are much the same, the parietal and occipital regions have suffered most, possibly a little more so on the right side. The deeper portions as well as the free surface of the convolutions are involved. A few small areas of acute softening are scattered over both hemispheres. Some of the convolutions appear intact on the surface, but can be moved about as if undermined. No particular gross change of the cerebellum, medulla or cord.

Microscopic sections of the cortex show the pial thickening to be mainly a loose reticulum of connective tissue. The pial vessels show varying degrees of arterio-sclerosis and endarteritis. The irregular cortical surface is the result of an obliteration of the finer cortical vessels, a partial destruction of the deeper cortical structures and a later sinking in of the surface. The superficial areas of softening are due to the same cause, the vascular supply being cut off. The nerve cells have suffered in the general change, much of the affected cortex is almost destitute of them. Many of the remaining nerve cells are shrunken and distorted with more or less pigmentary atrophy of the protoplasm. A moderate neuroglia reaction has accompanied the degenerative changes. Satellite cells are rather frequent, granule cells are rare. Black lumps of debris are scattered about the perivascular spaces and suggest a very chronic process. A large section of the occipital lobe shows the cortical outline, the cortical softenings, the sub-cortical excavations, the thick-walled vessels and the large ventricle very well.

Circulatory System.—The circulatory system shows an advanced general arterio-sclerosis, the aorta throughout being especially involved (presenting inelastic walls, large calcareous plates and ulcers extending well into the media). The heart is enlarged, chiefly a left-sided hypertrophy, contains large mixed clots in all cavities. The spleen is small and fibrous, the femoral bone marrow yellow and gelatinous. A study of sections of the various organs shows a well marked arteriosclerosis, more pronounced in the brain and the kidneys.

Respiratory System.—Epiglottis widely open; orifice of the larynx partially stenosed by a pale, soft swelling of the mucosa; mild inflammation of the mucosa of the larynx and trachea. Tracheal and bronchial cartilages calcareous. Ca-



No. 4.—Photograph (somewhat enlarged) of a transverse slice of the cerebrum which gives an excellent idea of the cauliflower-like appearance of the cortex, the superficial softenings and the subcortical wasting.

tarrhal pneumonia, more marked on the left side. Double pleurisy, fibrinous on left side, sero-fibrinous on right. Healed tubercular lesions at each apex, chronic interstitial pneumonia (left lung), infarcted area undergoing liquefaction in the lower right lobe, active tubercular lesions in the enlarged mediastinal glands.

Alimentary System.—Stomach, small and large intestine small and practically empty. Old peritoneal adhesions about

the cecum and appendix; liver firm, with pale, mottled surface (passive congestion).

Excretory System.—Kidneys show advanced arteriosclerosis, decided increase of intestinal tissue, and formation of many small cysts, in addition to acute changes (accompanying acute infection and fever).

In this case the clinical diagnosis of epilepsy was not sustained by the anatomical findings. The convulsive seizures are explained much more rationally by the gradual cortical destruction. This would also account for the slowly developing paralysis of the left arm and leg. How much the syphilitic infection had to do with the early impairment of the vascular apparatus is a matter open to discussion, but I consider it an important factor.

INJURIES INVOLVING THE ANKLE-JOINT.

BY

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(Read before the William B. Van Lennep Clinical Club.)

THIS paper deals with a class of injuries with which we are all familiar and which we are called upon to treat so frequently. They consist of sprains, from a "turned ankle" to a sprain fracture, dislocations, rare without a concomitant fracture, and the various fractures of the lower end of the bones of the leg and the astragalus.

The one most frequently met is a sprain, *i. e.*, a momentary subluxation of the joint, with stretching or tearing of some of the ligaments, contusion of the soft parts, rupture of smaller vessels and more or less synovitis or perhaps hæmorrhage into the joint. The cause varies greatly as does the degree of severity, from a slight twist with few symptoms to a severe injury with marked effusion into the joint, swelling and ecchymosis of the foot, ankle and leg, and pain and tenderness severe and often disabling.

The symptoms are marked, the history, the pain, especially when attempting to use the limb, the characteristic tenderness and the swelling are the cardinal ones. The tenderness will be over the malleoli and the carpal bones as well as the joint itself for ligaments, as a rule, are lacerated at their insertion into bone. The swelling involves the whole of the joint but is

more prominent externally or internally, depending upon the direction of the force, and this points to the location of the severest lesion. Effusion into the joint is recognized by the swelling felt and seen anteriorly between the flexor tendons and the malleoli, for the distended capsule of the joint is most superficial at these points, but fluctuation, though it can sometimes be made out, is often hard to recognize. In slight injuries the inconvenience is trifling and the symptoms rapidly disappear but when severe the patient should be warned that the convalescence will be tedious. Pain and tenderness continue over a long period, even after good function has been restored, slight twists, change in the weather and over-use will cause exacerbations with more or less lameness. A false, or even fibrous, ankylosis may develop and such an ankle is always susceptible to fresh injuries.

When little damage has been done a Gibney adhesive dressing will sufficiently immobilize the parts to allow healing to take place and the patient to walk upon the foot, but when severe complete rest is indicated and cold should be applied as quickly as possible and persisted in for several days when heat will very likely be more soothing and efficacious. Antiphlogistine will probably do more than any other dressing to relieve the pain and at the same time help absorb the effusion. Splints or tight bandages should never be applied early, for they are not only useless but will cause the patient a great deal of distress. As soon as the tenderness has sufficiently decreased massage and passive motion should be instituted and a cold, followed by a hot douche, should be given twice a day. With the ankle properly supported the patient should be encouraged to use the foot as prolonged immobilization will delay recovery and perhaps lead to some loss of motion. Various forms of anklets are to be obtained but a large soft shoe lacing well up on the leg will prove very convenient and give the greatest amount of comfort. An insole to support the arch of the foot will be of benefit.

The same mechanical factors which produce a sprain if carried further will cause the fractures most commonly met in this region. When the foot is forcibly adducted and inverted the external lateral ligament is put upon the stretch, and if it does not give way the external malleolus will be torn from the lower end of the fibula, giving what is commonly termed a sprain fracture. If the force is continued direct

pressure by the astragalus may either chip off the tip of the internal malleolus or the whole malleolus with a corresponding portion of the adjacent bone and the foot become dislocated internally or posteriorly.

At first a diagnosis without the X-rays is painful and impossible, for this reason as well as on account of the large amount of swelling which rapidly takes place it is best to treat the injury as a sprain for a few days and then make a more thorough examination, when the bony lesion can be made out. On account of the localized tenderness, the abnormal mobility and the crepitus. A plaster of Paris cast with the foot flexed to a right angle should give a good result, unless the whole internal malleolus is involved when every effort must be made to maintain the lower fragment in good position in order to prevent a stiff ankle. If the foot has been dislocated internally and anteriorly the dislocation must be reduced in the manner described later.

A fracture of the internal malleolus or a laceration of the internal lateral ligament is brought about by abduction and eversion of the foot, or by a combination of these forces. If the movement does not end here the inferior tibio-fibular ligament next feels the strain and this will be ruptured and the outer edge of the tibia torn loose. The astragalus is now dislocated outward and presses against the fibula. If the force is great enough the latter bone is fractured just above the malleolus or characteristically $2\frac{1}{2}$ or 3 inches up on the shaft, and this allows the foot to drop backward, *i. e.*, it becomes dislocated posteriorly. This is a Posterior dislocation with its five lesions. (1) Fracture of the internal malleolus or laceration of the internal lateral ligament, (2) Fracture of the tibio-fibular ligament or tearing off of a portion of the outer edge of the tibia, (3) Fracture of the fibula, (4) Posterior and (5) Outward dislocations of the foot.

Understanding the etiology and pathology of this injury or any of its component parts, a diagnosis should not be difficult. By observation the foot is seen to be carried outward and backward, the joint is widened, there is a sharp ridge of bone beneath the skin on the inner side of the ankle, *i. e.*, the distal end of the shaft of the tibia, the foot appears shortened, the heel is unduly prominent. There are three characteristic points of tenderness, over the internal malleolus, over the middle of the joint at the site of the tibio-fibular ligament

over the fracture of the fibula. As the shaft of the fibula is too deeply situated to be readily palpated pressure upon its upper end, which will cause pain at the seat of fracture, is a valuable symptom.

On account of the swelling and tenderness a fixed dressing cannot be applied immediately so the leg should be put up in a fracture box, retained in as good position as possible and cold applications made. In a few days, from four to eight, the fracture should be completely reduced and some form of a plaster cast applied, preferably a Stimson dressing. This consists of two plaster splints, the first starting at the internal malleolus is carried over the dorsum of the foot, around the outer edge, beneath the sole and up the inside of the leg, almost to the knee. The second begins at the base of the toes, runs along the sole of the foot behind the heel and up the calf so that the foot can be held in the proper position while the plaster is hardening, it can be freely inspected at any time and the splint is light and gives the patient greater comfort.

The reduction of the posterior dislocation is the most important and the most difficult step in the treatment. This is accomplished by grasping the back of the heel in one hand and the ball of the foot in the other and, while making firm extension, the whole foot is carried forward until it is felt to slip into place, when it is flexed to more than a right angle and inverted, and this is the position in which it should be immobilized. The failure to overcome the backward dislocation has caused more poor results in our experience than any other factor. To relax the calf muscles the knee should always be flexed, and, if necessary, a general anesthetic should be given, if this does not suffice the tendo Achilles can be divided. The cast should be worn for at least six weeks, but the patient can get around on crutches as soon as strong enough and passive motion should be commenced in four weeks. The after-treatment is the same as outlined for a sprain and is of great importance, for a considerable period elapses before perfect function and freedom from pain is attained.

Fractures of the lower end of the tibia, with or without a fracture of the fibula, are due to either direct or indirect violence, the latter most frequently a fall from a height. When both bones are involved the fibula is usually fractured at the higher level. The shaft of the tibia is often driven into the lower fragment causing comminution and involving the artic-

ular surface and this makes the prognosis much worse. A stiff and widened ankle is always to be feared. The injury may resemble that of a Pott's, but usually the history is especially if the violence has been direct, localized, and there is abnormal mobility and perhaps the crepitus elicited by manipulation will make the diagnosis clear. Every effort should be directed to mold the fragments into position and to control inflammation, and the foot should be put up flexed at 90 degrees as this is the best position if a stiff joint is the result. Early passive motion is contra-indicated, but when the joint has been secured both active and passive motion are indicated and called for.

Separation of the epiphysis of the lower end of the tibia is more frequent than of the upper end but it is equally rare. Poland has collected 46 cases and of these 22 were in the lower end of fibula or a fracture of this bone. The deformity is severe flexion or extension of the ankle and the position of the foot is fixed. Displacement may be absent, as in a patient recently treated by G. A. V. but in severe cases it may be in any direction though in most of the recorded cases when the injury has not been direct it has been posterior. A diagnosis is difficult, the constant symptoms are the age, the 11th to 17th being the most frequent, it may occur up to twenty years of age, about one inch above the joint, the deformity and the moist crepitus. The prognosis is good, non-union is rare and arrest of growth of the tibia, while occurring, is uncommon. The treatment is that of a Pott's fracture.

Poland could only find five cases of simple separation of the epiphysis of the lower end of the fibula alone, but he found many so-called fractures of the lower end of the fibula in children are true epiphyseal separations.

One form of fracture, which we have only been able to see with the aid of X-rays, is a linear fracture of the lower end of the fibula extending from the articulation upward and backward. As there is little displacement the treatment consists of immobilization in a plaster cast until union takes place. Probably we have met one such case a month in our dispensary practice during the last year. Our clinical diagnosis has been "sprained ankle." This lesion requires more prolonged treatment than a

diagnosis is of importance, but we can not throw much light upon it at present.

Fractures of the astragalus may be divided into two classes: (1) of the head and neck, and (2) of the body. The usual cause is a fall from a height, the patients landing upon their feet, especially is this true of fractures of the body, but they may result from direct violence. With such a history, with loss of function and with perhaps a flattening of the foot, an X-ray picture should always be obtained, for a diagnosis from the symptoms is in the majority of cases impossible. The swelling is always great, but with a fracture of the neck a fragment may be so displaced that it can be felt beneath the skin and sometimes crepitus is obtainable.

When possible the dislocated fragment should be reduced by manipulation and the foot treated with antiphlogistics until it can be put in a plaster cast. The operative procedures consist of incision, replacement of the fragment if it appears healthy and retention by sutures, if this does not appear advisable removal of the fragment offers the best result. Operation is rarely indicated in fractures of the body for it is impossible to thoroughly expose the bone, therefore antiphlogistics and a plaster cast is the best treatment. Passive motion and massage should be started at the end of four weeks, but the patient should never bear any weight upon the foot earlier than two months.

The prognosis is poor, some interference with function and pain persist in the majority of cases and probably 25 per cent. of the patients are seriously crippled while the convalescence is very protracted, lasting over a year even when a good result is finally obtained.

Uncomplicated dislocations of the ankle-joint are exceedingly rare and consist of backward dislocation of the fibula, of which several cases have been reported and dislocation of the astragalus upon the bones of the leg. The most common pure dislocations are the anterior or posterior dislocations of the foot upon the tibia and fibula. These are caused by extreme dorsal or plantar flexion. The lateral ligaments, and sometimes other parts of the capsule, are first torn and fixation of the astragalus is a later step. When anterior the foot appears lengthened, the hollows on either side of the tendo Achilles are lost, the foot is in position of plantar flexion and the astragalus can be felt in front of the tibia. Reduction is

usually easy by direct pressure and extension. The symptoms and treatment of posterior dislocations have been sufficiently described under Pott's fracture, and internal and external dislocations are almost invariably complications of fractures of the malleoli or a Pott's.

TRAUMATIC NEURASTHENIA.

BY

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Traumatic Neurasthenia has been known under a variety of significant names, such as *Railway spine* (Page); *Spinal concussion* (Erichsen); *Accident abulia* (Hamilton); *Traumatic neurosis* (Oppenheim); *Acute accidental neurasthenia* (Regis); *Hystero-Neurasthenia* (Gilles de la Tourette); *Traumatic dementia* (Bianchi), etc., etc.

Traumatic Neurasthenia is a condition of nervous breakdown due to shock, but to nervous, not traumatic shock (*Guinon*). *Nervous shock* implies the state of the victim of traumatism, that is, of more or less severe accidental shaking or stunning, in which fright plays an important part. *Traumatic shock*, on the other hand, signifies always a serious accident, in which the injuries are of such a character, as to compromise the life of the patient, or at least to make him a cripple, either physically or mentally. But *neurasthenia*, from any cause, says Bianchi, is a particular state of the nervous system in which the nervous energy, under whatever form it be displayed, is below the normal minimum relatively to each individual, and below the average of the race to which he belongs. This deficiency of energy, total, or limited to certain functions, is always accompanied by a great alteration of the kinesthetic sense in the direction of depression, by exalted emotive excitability with diminution of inhibitory power, by greater instability of character, by diminished efficacy of the product of labor, and by an extraordinary number of somatic phenomena. These last, subjective and objective, are, as it were, the conscious point of the malady, whence it radiates into all departments of the nervous activity, weakening and disturbing their connections, so that their hampered and inefficacious action aggravates the discomfort and reacts upon the character.

The symptoms of *traumatic neurasthenia* are episodic or permanent, and may remain isolated, as *stigmata* (Charcot), or grouped in clinical forms (*neurasthenic, hypochondriac, hysterical*). One of its chief features is its remarkable influence on the development of *hysteria*; it only requires the propitious soil to provoke it, thus complicating the diagnosis; or, then, we find a confusing blending of the symptoms of both neurasthenia and hysteria. A curious fact worth remembering, is, that no matter how trivial the trauma, it is as potent a factor of causation, as the most severe injuries, showing conclusively that this exciting influence is not in direct proportion to the intensity of the shock experienced (Gilles de la Tourette). To give more force to this assertion, it may be stated that McLane Hamilton, in his last work on the subject, concedes, that some of the most obstinate cases are those in which there has been, neither a history of dramatic or terrifying accident, nor any apparent serious immediate shock or injury whatever. Even in cases of *traumata of the head* we notice widely differing results, while relatively *slight traumata* produce grave consequences in certain individuals, in other cases traumata that are violent and apparently grave have very slight effects (Bianchi).

Neurasthenia is hereditary and acquired, and the first of these comprises developmental forms of all degree, which may be present before a traumatism has occurred, creating additional mischief; but in a sound organism, *traumata* of any kind produce both *general and partial neurasthenias*, sometimes of very grave order. In this form of the disease, *topalgia* (Blocq), and *intellectual deficiencies* are particularly frequent, but simulation and suggestion also occur very often, when questions of interest to the subjects are involved, as in the case of railway accidents or accidents connected with their work. Neurasthenic subjects, however, are not patients who always recover readily and completely, more especially as they cannot always attain the conditions favorable to their recovery.

The hereditary form of *neurasthenia* is more serious than the acquired, and among the acquired forms the most obstinate is the *traumatic*, so we can well appreciate the *prognosis* of a hereditary case aggravated by *traumatism*. We should also remember that periods of respite may also occur in any

form, and that many cases, in which there is anguish, end in suicide.

The insufficiency of the various functions, the sense of weariness, the pains and paresthesias, the visceral disorders, the palpitations, or the oppression, produce an intonation of sadness and of continual preoccupation with one's own health. No wonder neurasthenic subjects never enjoy life. Even when apparently happy, the gaiety he exhibits is superficial and is not constant; it has an intermixture of other phenomena, and is characterized by great instability of the *ago*.

Under the tyranny of this state of mind the neurasthenic consults all the medical men within reach, and if the malady continues, as frequently happens, he puts himself into the hands of quacks, or he tries by himself everything that is suggested by his friends, to whom he recounts his suffering, even if he does not adopt the suggestions on the back pages of periodicals of all kinds, and experiments with all the remedies extolled by the vendors of specifics for neurasthenia. With the exception of *hysteria*, there is no malady that presents *psychic disorders* so varied as those found in *neurasthenia*, and when *hysteria* and *neurasthenia* are blended together, the symptomatic complex is a kaleidoscope; nevertheless, we can distinguish three groups—the *emotive*, the *intellectual*, and the *somaesthetic*. It must be borne in mind, however, that the three pictures presented by the disease are not perfectly distinct; there is simply a prevalence of some phenomena giving the malady a predominant character (Bianchi).

Admitting then, that, while *neurasthenia* is *protean* in its manifestations, there are still certain symptoms rarely in default, which for this reason have been called by Charcot "*neurasthenic stigmata*," it would be convenient to define them here. They comprise several groups—*cephalic*, *mental*, *muscular*, *spinal*, *gastro-enteric*, *vaso-motor*, and *circulatory* as follows:

I. A special form of *headache* (*casque neurasthenique*) consisting of a *helmet-like pressure* of variable intensity, with *frontal*, *occipital* or even *lateral accentuations*, relieved by rest and the supine position; and made worse by work and the emotions. Instead of headache there is sometimes a *feeling of emptiness in the head*. The *occipital cephalalgia* causes much more intense suffering than the frontal. Darting and hammering, with *fear of approaching death*, etc.

2. *Insomnia, or disturbed sleep*, which is one of the most familiar symptoms of all forms of *neurasthenias*, and frequently not the result of pain, for the sensory disturbances in these case are relieved by rest. At any rate, the character of the *sleep* is changed. It is no longer restorative, but broken and filled with tormenting dreams that leave the subject in bad humour when he wakes. After a few hours' sleep the patients sometimes waken with a start, with a vague *sense of fear or with palpitations*, and they cannot go to sleep again. Some patients read, write, or walk up and down their rooms; but others remain in bed, full of *fear of various kinds*, constantly turning from one side to the other; some again have become frantic and despairing, and begin to foster the idea of suicide. Many others consult their medical advisers solely for *agrypnia* or *ahypnia*, and the anguish they suffer from it. But occasionally, an opposite condition may prevail, when sleep overpowers them in the midst of their business, or labor, and makes them despair all the more, especially as they cannot get a wink of sleep at night.

3. *Psychic Adynamia*, shown by various kinds of *indecisions*; impossibility to fix the attention on anything. The *troubles of the will* are also notable, waiting for something to turn up; *intermittent vacillations*, abulia. Perpetual inquietude (*malade aux petits papiers de Charcot*). *Constant anxiety* about the health, the recovery, the law-suits, or the physical examination by experts. *Morbid fears*, especially while crossing the locality of the accident, or *dread of closed or broad spaces*; of elevations, of crowds, etc. Dominant fixed ideas, or *obsessions*; active or negative *impulses*, with full consciousness and reasoning powers, but irresistible and anxious, especially in the hysterical type. Continuous or transitory *depression of the mind*. Changeable mood, *irritability and sadness*. Nostalgia. Jealousy. Frantic and despairing from contradiction, from insomnia. *Loss of memory*. The reproduction of images, of notions, and of thoughts is less prompt, less easy, and less faithful, so that *errors of memory* are frequent, giving rise to circumlocutions when he cannot find the proper word. The weakened power of association also shows the loss to the cerebral functions. The products of synthesis, says Bianchi, are scarcer and of low value, the flow of ideas is checked, and the imagination is very poor. States of neurasthenia may therefore be compared to states of pro-

tracted physiological fatigue. Just as the ergographic nerve curves are not so high after protracted muscular labor, owing to exhaustion, so we find the same thing in intellectual labor.

4. *Muscular asthenia*.—The pathological concept of *neurasthenia* is summed in the idea of *pathological fatigue*. As Bianchi, again asserts, all the psychic phenomena that enter into the clinical picture of the disease are the direct consequence of the *sense of weariness*, partial or general, and incapacity, in conjunction with the psychic orientation of each man and his intellectual and emotive content, or, in other words, the individual factor. The neurasthenic is easily fatigued; the *sense of weariness* seems to have no limit and it may be attended by intermittent displays of *emotional lability*. At times there seems to be great capacity for work and at other times the patient seems to be devoid of energy. There is lack of force to aid mental orientation; and any unsuccessful effort to act, ends in distress. The feeling of fatigue is frequently attended with *weakness of the back* and *limb tremor*. When the patient is worried or excited there is more or less

5. *Rachialgia*.—The neurasthenic *backache* has also been termed *spinal irritation*, and Hammond attributed it to ischæmia of the posterior columns. It may or may not be attended by *hyperesthesia*, and like the head, the back is the seat of *pains and paresthesias* of various kind, with points of excitation in patches (*cervical, lumbo-sacral, and coccygodinic*). The *pain* is distressing and irregular, *with or without hyperesthesia* and worse on touch or pressure. It is of a *pungent or burning character*, and is felt along the spine, more particularly at the points mentioned, from which it may spread to the trunk and limbs. The *radiating pain* is often accompanied with *numbness* and *tingling* in the extremities. It may become excessively intense, and it continues even when the patient is at rest. Not even repose in bed will mitigate it. But the *signs of neurasthenia* are the *circumscribed spinal pains*, which are almost constant. It is rarely that we find a neurasthenic who does not complain of a *pain in the lumbo-sacral region*. It causes unbearable discomfort, and may resist all treatment for years. Often this pain causes a *sensation of weight*, or a deep-seated acute painful pressure. It is much more intense after sexual abuses or prolonged standing. There is a peculiar

variety of *neurasthenic backache* which appears on bending the spine forward or backward.

6. *Functional atony of the digestive organs* is a pathognomonic symptom of *neurasthenia*. The innervation is insufficient, and as a consequence we have a *nervo-motor dyspepsia*, with or without hyperchlorhydria, with *hyperchlorhydrie* with *permanent stasis*, or *permanent stasis* with *hypochlorhydria*. Mental work in these cases provokes an *intermittent nervous gastroxia*, which lasts one or two days, and is usually attended with headache, acid vomiting, and burning in the stomach. Clinical observers have recorded as important, either a slight or severe *gastro-intestinal dyspepsia* (anorexia, fermentation, distention of the stomach, vomiting, diarrhoea, somnolence), or *atony of the lower bowel*, with constipation, flatulence and colic.

7. *Vaso-motor and circulatory disorders* are also constant attendants of *neurasthenia*. *Obstinate* blushing, cutaneous hyperemia, coldness and lividity have been included in the symptomatic complex of the disease, but more important yet is the *profuse sweating on the least exertion and in cold weather*. Subjective sensations of cold and heat are as common as *palpitations and acceleration of the pulse*. The *tachycardia* may show an average of 120 beats, and after hardly any excitement it may reach 170, while the *arterial tension is lowered*. Bianchi asserts, that many neurasthenic subjects are very *prone to blush* (this I have observed in three cases due to railway accident), or turn pale under the slightest impression, and suffer from *palpitation, tachycardia, bradycardia arrhythmia*, or even attacks of *angina pectoris, asthma, oppression*, or serious *disturbances of digestion*, as stated above. The predominance of these phenomena has caused some to speak of *visceral forms of neurasthenia*, and especially of gastric, cardiac, or respiratory neurasthenia. The *cardiac syndrome* has been known for a long time, and it is represented, says Bouchut, by the alarming group of symptoms just mentioned. Sometimes the *arrhythmia* (the delirium cordis of Huchard) comes in paroxysms and with anguish. *Hemorrhages and hematemesis* may take place without any apparent causation or sufficient injury in connection with circulatory changes. The same may be said of *changes of secretion and excretion*. Huchard says that the innervation of the stomach is defective,

and that the defect is not limited to the muscles, but affects also the *glandular secretion*.

The above are the syndromes that point out the nature of the malady, and they comprise those symptoms generally accepted as *pathognomonic*. The others, usually seen grouped together in special works, are mostly considered secondary in diagnostic value as they lose much of their importance when unattended by the former. For instance, *vertigo*, *tremors*, *pallidation*, *tachycardia*, *asthenopia*, *nocturnal pollutions*, and even *hyperesthesia* would furnish us little information without the *state of the mind and disposition and other phenomena of defective innervation*. And yet, we, as homœopaths, cannot very well underrate the value of symptoms, whose prevalence, in particular cases, may give the malady a predominant character and even influence the selection of the remedy. The mental syndrome, however, is the one that chiefly gives us the necessary data for the true appreciation of *traumatic neurasthenia*. It is the main element of decision, for it is a disease of psychic origin, and as McLane Hamilton says "the best proof of this is, that the subject at the time of the accident goes about helping his injured fellow-passengers, and then returns to his home to develop gradually his incapacitating condition, a condition in which the *lowering of volition* is the most important manifestation, and which especially in women or in individuals of a neurotic temperament, is attended by *melancholia*, sometimes associated with intermittent *displays of irritability* of very short duration, and *obsessions* and *morbid fears (phobias)* of various types."

In the analysis of this syndrome it is valuable to notice that gradual development, versatility, and intermittency, are the chief modalities of the mental state of neurasthenic subjects. Next in diagnostic value comes, perhaps, the *headache*, the *backache* and the *weariness*. Neurasthenics, says again McLane Hamilton, are noted for the unstable nature of their aches and pains, their headache and backache being comparatively constant, but the *peripheral disorders of sensation* rarely resemble those of any other conventional kind of disease, they are vague, with no adequate explanation for their existence. They consist of *numbness*, *tingling*, *formication*, etc., and these may be localized or general, and rarely distinctly unilateral or defined, as in hysteria. General *muscular soreness* is sometimes complained of.

The headache whether frontal, occipital, or bitemporal, starts in the morning, on commencing to move, and improves with rest, or on the supine position. It has been very properly compared to the pressure of a *helmet*, or that produced by an encircling iron band, but it may hardly be complained of if the patient is compelled to remain in bed. It is often paroxysmal, and may be attended by *flushing of the face*, *hyperemia*, and *distention of the temporal arteries*, and is sometimes associated with visual and auditory illusions. Sometimes the headache is general and intense. The *frontal headache* is sometimes a sense of weight; sometimes it resembles blows with a hammer, or is like a band tightly tied round the forehead. When pressing heavily on the head and on the orbits, the eyes are heavy and painful, and compression appears to relieve them. This form is more frequent in those who have undergone very long or intense mental labor. *Occipital headache* is compressive and penetrating, and causes much more intense suffering than *frontal headache*. It is sometimes associated with vertigo or nausea, and in such cases it is accompanied by a profound sense of ill-being, as of approaching death. *General headache* is *darting*, *hammering*, *compressive*, *constrictive*, *throbbing*, etc., these being the words with which the sufferers generally express themselves. General headache is more frequent after sexual excesses or prolonged intellectual labor. Mental labor, emotions and fasting increase *neurasthenic headaches*, while they diminish and cease altogether after meals. In *general headaches*, we must take account of the position of the head, for instance when one is attentive in an erect position the muscles of the neck are tired by the flexion of the head, and pain is felt at the line of insertion of those muscles. From that point it sometimes spreads to the crown of the head or further forward. In very many cases the sensation is as though there were some barrier in the way of the ideas, forming a painful obstacle of more or less alarming character.

The *rachialgia of neurasthenia*, contrary from what it happens in the *cephalalgia*, is not mitigated by repose in bed. The *pain* is distressing and irregular, with *cervical*, *lumbo-sacral*, and *coccygeal localizations*, and may be associated with tenderness, and sometimes with numbness and tingling; but, as stated above, is chiefly of a *burning character*, and felt along the spine, from whence it may radiate to the trunk and limbs.

These associations are still more unbearable when complicated by a sprain or other class of injury. It is worse on touch or pressure, or on bending the spine forward or backward. The *coccygeal pain*, especially, is often very intense, and in women may persist for a long time, and become exaggerated by previous derangements of the pelvic organs. These *back-aches* interfere with walking, standing, and bending, and the change of position, from a bed to a chair, causes intense suffering. A proceeding to be made use of, when examining a case.

The *fatigue of neurasthenia* is of mental origin. Hamilton claims that "an analysis of most cases will show this, for not only will an inconsiderable emotional excitement prostrate the subject but a severe shock will, as every one knows, lead to complete inhibition, so that the volition is suspended for a time, when there is then virtually a functional paresis." Then again, "there is no doubt that the retention of toxins, from inaction or fear of exertion, results in auto-infection, thus interfering with the distribution of nervous stimulus sent to supply force. There is no true *paralysis in neurasthenia*, unless complicated with *serious traumatism*, and even in the occasional rare cases in which the will has been suspended for a long time, the apparent lifelessness and rigidity of the extremities is, after all, an *ideational paralysis*, which is curable. The *reflexes* are of little diagnostic importance in *neurasthenic states*." We should never be surprised to see the *muscular debility and languor* interrupted by fits of vigor, for this is a characteristic turn of the disease. There are some *neurasthenic* subjects who, in addition to a continuous feeling of weariness and a strong desire to lie down to rest, suffer *pains* in the muscles whenever they make the slightest muscular effort. One will mount a horse, but be compelled to dismount in a few minutes on account of pain in the thighs, the back, and the arms. Another has to relinquish his game at billiards after a few cue-strokes for the same reason. When at rest *neurasthenics* are well enough.

Other local pains (*topoalgias*) are found in the viscera, in the cardiac region, etc.; but they are less frequent, although they alarm the patients a great deal more than the spinal pains. *Neurasthenics* are a veritable nursery of hypochondriacal ideas. *Hyperesthesia* is found in all the senses. A light, any noise whatever, cannot be tolerated, or will cause great discomfort

and produce weariness. Even music is unbearable. The visual power is also very much diminished when looking steadily at a luminous body for even a short time. While riding, especially in a railroad car, the *spinal hyperesthesia* is extremely distressing. On the other hand, *paresthesia* is common, especially in women. They complain of *tingling, shivering*, and sensations of crawling in their hair and over the skin. They have a feeling of cold or of heat associated with an indefinite sense of discomfort, in the calves of the legs. They suffer from heat in the face, a burning sensation in the head, especially top of the head, and scorching heat in hands and feet.

The other recorded syndromes deal with *insomnia*, which is characteristic of all neurasthenias, and seldom, as stated before, the result of pain, but due to mental worry and anxiety, especially in the nervous and impressionable; also with *functional atony of the digestive organs*, with the common *neuro-motor dyspepsia*, and the train of phenomena peculiar to it; and with *vaso-motor* and *circulatory disorders*, of which obstinate flushing, profuse sweating, palpitation, and acceleration of the pulse, as well as *changes in secretion and excretion*, are the leading expressions.

The *tissue metabolism* is by no means exempted, in proof of which it will suffice to mention the frequency of *phosphaturia*, as well as the emaciation of some and the polysarcia of others. Alongside these fundamental characteristics of neurasthenia, which we may regard as general, there coexist or even predominate in many cases, *functional disturbances of single organs*, which sometimes become so intense as to conceal the other disorders and give place to *partial neurasthenia*, so-called.

But in the *Semeiology of traumatic neurasthenia* must also be included, of course, the results of *severe shock and injuries*, such as concussions, contusions, lacerations, fractures, etc., as only so, we may be able to appreciate the extension and gravity of a case and call surgical aid when required. This we should do, when *contusion of the spinal cord*, which is nearly always attended with hemorrhage in the gray substance, should be followed by loss of motion and sensation over the location of the injury; if reflex action is temporarily suspended, and if hyperesthesia would set in later. If assistance is not readily obtained we may notice the development of *anesthesia, paralysis, rigidity*, or *an ascending myelitis*. Similar results, more or less, would follow *compression* and *concus-*

sion, but the symptoms of the latter usually pass off in a few days. In *Compression of the cord*, if the symptoms come on immediately, there must be fracture, when they present themselves after an interval, they are due to hemorrhage. Loss of motion, pain over the nerves, hyperesthesia and muscular tremors are frequent. A peculiar train of symptoms follows sometimes railway injuries (*railway spine*), which simulate more or less, locomotor ataxia, may be attended by severe shock and terminate in death, but temporary improvement and imperfect recovery are more frequent. We find no gross lesion in the cord and the manifestations are indefinite. In any case in which there is cerebral trouble, we should always surmise that the inflammation has extended from the spinal to the cerebral meninges, for the medulla governs the pathology of *railway-spine* (Gilles de la Fourette). After *cerebral shock* or *concussions* (*railway-brain*) there is only temporary arrest of function, no organic lesion or severe injury. The symptoms include temporary loss of consciousness, pallor, acceleration of the pulse, fainting and disturbed breathing. After a few minutes the patient rouses, looks around, is dizzy and complains of headache for some hours afterward. Greater violence may result in *contusion*, and is attended with actual injury to the brain substance, the essential lesions of which it is not necessary to mention here. *Lacerations* also result from direct injury and usually in combination with *contusions*. They are found opposite the points at which the violence was applied and may be followed by *hemorrhage* and *death*, within six weeks. *Death* may also occur immediately after the injury from *general contusion*. If, after a head is injured, a localized paralysis is present, it indicates a laceration of the center corresponding to the muscles implicated. If there is a distinct spasm, affecting a group of muscles, it indicates hemorrhage from the lacerated brain. If the seat of the lesion is the third left frontal convolution the result is *motor aphasia*. In a cortical lesion the paralysis is complete, localized, and usually does not appear for some time after the injury. In a central lesion the paralysis occurs immediately, is complete and extensive, and involves the whole of one side. Finally, *compression of the brain* is due to fracture and the symptoms are those of coma, etc.

From the study of the above *Syndromes* we may well conclude that as the prevalence of certain phenomena is what gives

neurasthenia a predominant character, and there seems to be no perfectly distinct features in this malady—*individualization and symptomatic treatment* are the only alternatives.

Besides the indicated remedy, we, like our friends on the other side of the fence, obtain good results, especially in the *states of depression or nervous erethism*, from cold douches, and a diet consisting principally of small quantities of easily digestible food. We, like them, also, pay particular attention to *hygiene, rest, exercise, isolation, moral therapeutics and voyages*, but, in general, we discard sedatives, hypnotics, analgesics, and other agents of crude character, as *Bromide of Potassium*, not only because we have found them wanting, but because they really do harm, and besides they dim, conceal, or annul many characteristic expressions of disease, thus depriving us of good guides for the selection of the remedy. In this respect, indeed, I think it is time to emancipate ourselves from the erroneous teaching of presumptuous and out of date instructors, who in these days of *sero-therapia, electro-therapia, radio-therapia, colloidal metals, opsonic indexes*, etc., still cling tenaciously to *discredited, loathsome polypharmacy*, source of so much discomfort and suffering. We should certainly try, when unsuccessful, anything recommended by honest men to allay suffering, but for the sake of truth, if nothing else, do not blame *Homoeopathy* for a failure entirely due to ineptitude and inefficiency. Acknowledge your ignorance, or routine, or both, and leave in time the beaten tracks of therapeutic sterility, for otherwise, you will find yourselves some of these days unconsciously militating in the lines of the enemy, which, as we all know, is now steadily retreating to more promising grounds, and coming closer to *similia* every day. Do not call insuccess what is deficiency, omission, neglect, and non-observance of established rules and precepts.

The prosperous termination of anything attempted always depends on our knowledge and ability to encounter it, hence examine well the soil of your endeavors, the causes and conditions of disease, its varied manifestations, and study carefully our remedies to apply them according to the law of *Similars*. Who ever does that will have no necessity to make useless incursions into the disgraced realm of *crude pharmacomania*, gradually abandoned, I repeat, by the very men who not long ago, tried with all their might to impress us with the wonderful qualities of revolting drugs. True enough, again, the slug-

gards will remain docile to easy methods and depend for success on the natural defences of the organism and the recuperative efforts of nature; but the medical student of to-day is getting tired of fruitless bondage, commencing to think for himself and cannot endure any longer the disputed theories and whims of their teachers. Light, bright light, is penetrating all fields of experiment and trials, and we can say at present that the days of arrogance, bigotry, and self-conceit are over, and only relics of an ignominious past. We have reached such a point of vacillation and confusion in medical matters, that we see everywhere, in the world, self-esteemed, bumptious, pert men making absurd claims and announcing discoveries that seem to have no end, that throw derision on Medicine and Science and make the educated lay wonder and doubt of their wit.

The dunce and the bigot may curl their lips as much as they please, it will remain the smile of the fool; they may claim to know the earth, if they choose, but they cannot change their kaleidoscope. They can speak and brag of unknown progress and try to deceive the people, but they will not succeed, and they may endeavor to obtain legislative favor, but their cause is dead, and new, vital elements will drive them to the wall.

Of course, like all schools of medicine, we have conscientious prescribers, and by conscientious prescribers, I mean those which, no matter to what school they belong, know well the conditions they confront, the means at their disposal to combat them, and, above all, adhere to principle. No one will ever trust a backslider or claptrap. We all have made mistakes. I believe, unscrupulous men, shrewd enough to conceal their scanty knowledge by subterfuges and diatribes, and who rather pass as *hybrids*, than vindicate their stand. Such men of our school, however, should bear in mind that *Homoeopathy* has two ways to reach the *similimum*, and that to be counted *Homoeopathists* they must take the right way. Our *therapeutics* has an inviolable system, it is one for all, it admits of no change, and is governed by an immutable law, which for over one hundred years has been steadily influencing the correction of shameful cruelties and disgusting methods: and wonderful enough, has been at last publicly acknowledged, and already has commenced to have sway among our detractors.

Semeiology constitutes then our chief source of information in regard to morbid states and their treatment. It teaches

us to recognize the character and location of the malady, as well as to gain a just appreciation of the origin and relative value of symptoms. We must also know, not only the antecedents, causes, mutual relation, and connections of these symptoms with each other, but the results that may be expected to flow from them singly and combined. And finally, by a careful analysis of the phenomena observed in *traumatic neurasthenia*, the inexpert will be amply prepared to effectually protect the interests of his patients, when under the severe tests of contending experts; and besides, he will be in a convenient position to choose advantageously the indicated remedy. We must admit that no malady known shows better the value of *symptomatic treatment* than *neurasthenia*, for the versatility of its manifestations is remarkable; but as this paper is already too extensive, I shall not enter into details, but limit myself to give a *synopsis of the treatment of this protean disease*.

The centers which supply us the leading indications are the *mental, cephalic* and *spinal*, so I shall first refer to them.

The *psychical phenomena*, especially in *hysterical females* or individuals of a *neurotic temperament*, are usually of the *melancholia type*, but may be associated with *intermittent displays of vigor* of very short duration. The *lowering of volition* is remarkable, and very characteristic are indeed: *despondency, apathy* and *indecision*, the latter almost always attended with *morbid fears* of various sorts. Morbid expressions of the mind of a depressive character sometimes culminate in *dominant and fixed ideas* (obsessions), or in *emotional displays*, chiefly of the *lachrymose* type. This is more or less the *mental syndrome* of traumatic neurasthenia, in which we have not included some characteristic of hysteria proper, or those related to *injuries of the cranium, vertebral column* and *their contents*:

For the indecision, we can study with profit the following remedies: PULS., IGNAT, LACHES, NUX V., PETROL., ALUM., ARSENIC, BARYTA C., CALC. C., NAT. MUR., CHAM., CHINA., CUPRUM, FERRUM, HELLES., JODUM, KALIC., MAG. MUR., MEZER., SULPHUR., RHUS TOX., TARAX.

For the despondency, we have to look into the pathogenesis of ACONITE, AURUM., PULSAT., PAL. C., IGNATIA, LACHES., SULPHUR, VERAT., and VALER; or of SILICA., SEPIA., RHUS. TOX., PLATINA., ARSENIC., ARNICA., GELS., NUX V., NAT.

MUR., NAT. CARB., HYOSC., GRAPH., LYCOP., HELLEB., and RUTA. and STAPH.

For the apathy or indifference: ARNICA, HYOSC., PHOS. ACS. STRAM., IGNAT., BARYT. C., BELLAD., CALC. C., SEPIA., SILICA., ARSENIC., CHINA, HELLEB., OPIUM, STAPH.

For phobias (morbid fears): ACONITE, ARNICA., ARSENIC., ACTEA., BELL., CALC. C., OPIUM, PULSAT., BARYT. C., LACHES., CHINA., PHOSP., PLATINA., SEPIA., GELSEM., STRAM., SULPHUR. *Fear of death:* ACONITE, ARSENIC., PLATINA., GELSEM., APIS., BELLAD., CANN. IND., HELLEB., LACHES., MOSCH., COFFEA., PHOSPH., HYOSC., ACTEA. R., NIT. ACID, HEPAR, IPEC., RHUS. TOX. *Of public places:* ARNICA., ACONITE. *Of a crowd or of crossing busy streets:* ACONITE, ARNICA, AURUM, PULSAT., NAT. MUR., ARSENIC. *Of being touched or struck by passing persons:* ARNICA. *Of accidents and misfortune:* ACONITE., ARNICA., CALC. C., CYCLA., GLONO., GRAPH., SULPH., FERRUM., MAG. C. *Of loss of reason:* CALC. C., CANN. IND., ACONITE., ALUM., LILIUM., PLATINA., and TARANTULA HISP. *Of closed places:* ARSENIC., CARBO. V., SULPHUR., HYDROC. AC., PULSAT.

For fixed ideas (obsessions): AURUM., IGNAT., BELLAD., ANACARD., HYOSC., CICUTA., LACHES., CUPRUM., STRAM., SILICA., PULSAT., THUJA., VERAT., CANN. IND., SULPHUR., ACONITE. *For hypochondriac ideas:* CALC. C., IGNAT., NUX V., LACHES., NAT. MUR., SULPHUR., PULSAT., ACONITE., ARSENIC., AURUM, BELLAD., BRYON., ANACARD., CHAMO., CHINA., PHOSPH., CAUST., MOSCH., PLATUM., PHOS. AC., RHUS. TOX., SEPIA., STAPH., TINC.

For emotional displays: BELL., HYOSC., STRAM., PULSAT., COFFEA, AURUM, CALC. C., IGNAT., LACHES., NUX V., BRYON., OPIUM, PLATINA, VALER., VERAT. ALB., ANGUST., CONI., MOSCH., PHOSPH., SULPHUR, ANACARD., SEPIA., SILICA. VIOLA., GELSEM., SENEGA. *Of the lachrymose type:* PULS., NAT. M., SULPHUR., IGNATIA., AURUM., LYCOP., SEPIA., CALC. C., PLATIN., PHOSPH. *With irritability and impatience:* CHAM., BRYON., HEPAR., GELS., PULS., KALI. C., LYCOP., SEPIA., NUX V., HYOSC., COCCS., ACTEA., SENICIO., CYPRED., SILICA., PHOSP., SULPH., NAT. MUR., NIT. AC. *With variable mood:* IGNAT., PULS., CROCUS., PLATINA., ACONITE., BELLAD., AURUM., SEPIA., MOSCH., VALER., STRAM., ALUMEN, etc.

As stated above, the pathological concept of *neurasthenia*

is summed in the idea of *pathological fatigue*, and all the psychic phenomena that enter into the clinical picture of the disease are the direct consequence of the *sense of weariness*, partial or general, and of incapacity, in conjunction with the psychic orientation of each man, and his intellectual and emotive content, or in other words, the individual factor. This *sense of weariness* seems to have no limit, and yet, let us repeat, it may be attended by intermittent displays of emotional activity.

For the *sense of weariness*, we must consult such remedies as GELSEM., COCCUL., PHOS. AC. ARSENIC., ARNICA, PICRIC ACID, NUX V., CHINA, CARB. VEG., PHOSPH., RHUS. TOX., STAPH., VERAT., SULPH., IPEC., LYCOP., AMM. C., CAUSTIC., LACHES., CALC. C. After exertion: ANACARD., COCCUL., SEPIA., ARNICA, GELSEM. After mental exertion: PICRIC ACID., GELSEM., IGNAT., CALC. C., NUX V., SEPIA, LYCOP., ANACARD., LACHES., NAT. MUR., SILICA., STAPH.. etc.

But the *fatigue of neurasthenia* is also of mental origin. The *mental weakness* is shown by various kinds of indecisions, but chiefly by the impossibility to fix the attention on anything, or better, by the inability to attend to anything requiring thought: in fact, every *mental exertion* causes a sense of helplessness sad to contemplate and the *loss of memory* seems to go *pari passu* with the *mental languor*.

For the *mental debility*, we may suggest the study of PICRIC ACID., GELSEM., AURUM, LACHES., CALC. C., NUX V., RHUS. TOX., HYOSC., STAPHIS., CARBO. V., CHINA, SULPHUR, NAT. MUR., PULSAT., SILICA, MERC., STRAM., VERAT., ANACARD., BELLAD., LYCOP., OPIUM., SEPIA., and PHOSPH. AC. Complicated with injury of the head: ARNICA, CICUTA., RHUS. TOX., MARCUR., and STAPHIS. For the loss of memory: ANACARD., AURUM. ARNICA., HYPERIC., ALUM., BOVIS., HEPAR., HYOSC., LACHES., NAT. MUR., NUX M., OPIUM., STAPHIS., SULPH., BELLAD., BRYON., CYCLA., IGNATIA., HELLEB., LYCOP., PETROL., RHUS TOX., SEPIA., SILICA., STRAM., VERAT., VIOLA.

The alteration of nerve-function most important in this malady, is *insomnia*, the result almost always of an irritable and badly nourished brain, and sometimes the product of a *fixed idea*, but occasionally is due to restlessness, pain, or anticipation of evil arising from causes relating to finances, inability to work, loss of position, prognosis of the case., etc.; and more

frequently, it is of purely functional origin, occurring particularly in the nervous and impressionable, who do not cease to worry or fret about the accident which brought on his morbid condition, or any established litigation or lawsuit. Hamilton, among others, believes that it is seldom the result of pain, for as a rule the headache and other sensory disturbances are relieved by the supine position and rest; that much of the wakefulness of the neurasthenics, arises from their failure, either through inability or fatigue to take the necessary exercise, and as a consequence there is more or less toxemia, due to retained waste material, which is not excreted; and finally that there is ample reason to believe, and many cases support such a conclusion, that a great deal of the *insomnia of neurasthenic subjects* originates in, and is fostered by an obstinate and continued belief that sleep is impossible.

The remedies which, in connection with this symptom, have shown their influence on this malady are the following: ACONITE., COFFEA., BELLAD., GELSEM., NUX V., PULS., HYOSC., IGNAT., CHAM., RHUS., CONI., OPIUM., MOSCH., SULPH., CHINA., PHOSPH., CINA., JODIUM., SECALE., CAUSTIC., ACLEA. E. *Sleep prevented by nervousness*, calls for NUX V., CHINA., COFFEA., SEPIA., MOSCH., LYCOP., CALC. C., GRAPH., LACHES., HEPAR., SULPHUR., and TENCRUM. *When prevented by backache, think of*: AMM. MUR., PULSAT., GELS., KALI. C., etc.

A neurasthenic sensorial disturbance of frequent occurrence is *vertigo*, which may be found associated with *tinnitus*, *asthenopia*, but chiefly with *headache* and *agoraphobia*. A sudden variation in the blood-supply, or slowness on the part of the vascular walls to adapt themselves to sudden alteration of a motor character may explain its presence; or perhaps may be due to some interference with the centripetal impressions from the eye, ear, muscles, or skin, which regulates the action of the equilibrating centres. "In *neurasthenia* this *symptom* becomes disagreeable and causes a great deal of alarm." The patient may be unsteady, or go down and up stairs with difficulty, but not in the way familiar in tabes and some other spinal disease. It is often attended by *tachycardia* and relieved when the patient lies down.

The remedies to combat this distressing symptom are: ACONITE, ARNICA., BELLAD., CALC. C., CHINA., CONI., GELSEM., HEPAR., LACHES., LYCOP., NUX V., BRYON., PHOSP., PULSAT., RHUS. TOX., SANGIN., SILICAS. SULPH., AETHUSA.,

AMBRA., AMM. C., BARYTA., CAUST., COCCUL., HELLEB., IGNAT., NAT. M., NIT. AC., and MERC.

I shall pass over the *disorders of the nerve of special senses*, the *circulatory disturbances*, the *paresthesias*, the *visceral disorders*, which are secondary in this affection, and close this summary with two of the most important symptoms of *neurasthenia*, namely *headache* and *backache*.

The *headache* is often paroxysmal and chiefly *pressing as from a helmet* (casque neurasthenique de Charcot), of variable intensity. It may be *frontal*, *bitemporal*, *occipital* and *even unilateral*, like migraine, and the *occipital* causes more suffering than the frontal. It may also be *compressive*, *darting* and *hammering*, with fear of death. It is worse by mental labor and emotion, and relieved by rest and the supine position. Sometimes it is attended by *congestive conjunctiva* and *tenderness of the scalp*, and instead of headache there is occasionally a *feeling of emptiness in the head*.

To relieve these *headaches*, Homœopathy counts with many valuable remedies, as follows: For *helmet-like pressure* we can study: LAURO., MEZER., RHODS., SULPH., TEUCRI., CYCLAM., JODUM., NIT. AC., STANN., SARSA., GLONO. *Headaches of a pressing character* have also been cured by SILICA., CHINA., NAT. MUR., ANACARD., SPIGEL., ASARUM., BARYT. C., CALC. C., BOVISTA. and LACHES. For *darting pains* consult: AMBRA., ARNICA., ANACARD., BELLAD., CALC. C., IGNAT., CHINA., NIT. AC., PULSAT., SEPIA., SILICA., ACONIT., and SULPH. For *hammering pains*: FERRUM., AMBRA., CALC. C., BELLAD., IGNAT., LACHES., LEDUM., NAT. MUR., PHOSP., PULSAT., SEPIA., STRAM., GLONO., SULPH.

Moreover for *frontal headache*: ACONIT., ARNICA., ARSENIC., BELLAD., BRYON., CHINA., IGNAT., LYCOP., PHOSP., SULPH., ALUMEN., CALC. C., COCCUL., IPECAC., KREOS., NAT. MUR., NIT. AC., NUX M., NUX V., PETROL., PLATINA., SABAD.

For *occipital headache*: NIT. AC., CALC. C., SEPIA., IGNAT., CARBO V., KALI. C., SULPH., MOSCH., MUR. AC., PETROL., MAG. M., GELSEM.

For *unilateral headache*: PULSAT., NUX. V., SANGUI., COL-OC. SEPIA., CHINA., IGNAT., ARSENIC., CALC. C., COCCUL., LYCOP., IPECAC., BRYON., CHAMO., COFFEA., ASARUM.

If, instead of headache there is a *feeling of emptiness in the*

head, study: PULSAT., COCCUL., SEPIA., IGNAT., OPIUM., and OXALIC. AC.

The *backache* of neurasthenia is distressing and irregular in situation, but usually is seated in the *lumbo-sacral region*. The pain is of a *burning character* and is felt along the spine; or is deep seated, with or without superficial *hyperesthesia*, worse on touch or from pressure. If the pain radiates is often accompanied with *numbness and tingling* in the extremities, and may leave the coccyx tender. The pain is peculiar when the spinal column is bent forward or backwards. Sometimes is so intense that it continues when the patient is at rest. The *cutaneous hyperesthesia* produces great discomfort, by contact of the ordinary clothing. *Muscular soreness*, general and localized are often associated with the pain.

Dr. Farrington, in his excellent paper on *Neurasthenia*, published in the HAHNEMANNIAN MONTHLY, of February, 1883, gives the following remedies, from which I have always made my selection for cases of *spinal trouble*: NUX V., PHOSPH., SELEN., HELON., GRAPH., NAT. M., PICRIC. AC., PULSAT., SEPIA., DIOSC., ZINC., SULPH., AESCUL., ARG. NIT., ARSENIC., ALUMIN., COCCUL., GELSUM., CHINA., CHININ.ARS., IPOMEAE. When the *lumbar spine* remains sensitive he recommends: PHOSPH., AGARIC., BRYON., LYCOP., PULSAT., SEPIA., ARSENIC., and ALUMIN. When there are *transverse stitches*: SULPHUR. With *cutting* through the back: NAT. MUR. *Cutting down into* the legs: ZINC. When *pains go around*: PULSAT., SEPIA., BERBER. When the pains *go down to thighs*: SEPIA., When the pain extends *into the hips*: GELSEM. *Bruised sensation* is common to nearly all. *Tension* is marked in ZINC., NUX V., SULPH., NAT. MUR., and VALERIAN.

Other authorities give for *backache*, in general: SEPIA., PULS., CALC. C., PICRIC. AC., SULPHUR., LACHES., SILICA., NAT. M., KREOS., LYCOP., KALI. C., MAG. C., BOVIS., ARNICA., ZINC., PLATINA., NUX M., NUX V., SULPH. AC., STRAM., MUR. AC., MERC., AMM. C., BARYTA., PHOSPH., VERAT. and ASARUM.

For *burning pains*, which are almost characteristic, I have used with success, SULPHUR and NIT. AC.; others recommended CARBO ANI., and when located in the *lumbar region*, NIT. AC. and BARYTA. When the *pains are deep seated*, digging, some have found, SEPIA., ACONITE, and DULCAM., very useful remedies.

THE PROFESSIONAL NURSE.

BY J. WYLLIS HASSLER. M. D., NEW YORK CITY.

(An address to the Graduating Class, Metropolitan Training School for Nurses, Blackwell's Island, N. Y.)

I congratulate you, members of the Graduating Class, upon the happy completion of your years of training and your admission to the beneficent and honorable profession which is to be your life work. There never was a time when commencement addresses did not contain more or less advice. Some among the audience, our Superintendent of Nurses, for instance, must have heard at the many commencement exercises at which she has been present, advice sufficient—had she heeded it—to make her but a little lower than the angels. It is said—"Good advice is one of those injuries which a good man ought, if possible, to forgive, but at all events to forget at once."

A prejudiced counsel cannot be expected to fairly present the claims of those who are the favored, or the victims of his bias. I must frankly confess that I am so enthusiastically prejudiced in favor of the professional nurse that I am quite incapable of giving proper consideration to, or to do justice to, all the many others who are engaged directly and indirectly in the great works of humanity. In my student days I looked up to my instructors and made heroes of them as my juvenile mind asserted its fickleness. I recall distinctly that in my freshman year the lecturer on Physiology was the only member of the major faculty who deigned to notice a struggling freshman. He was, of course, in my mind, the bright and particular star in the medical firmament. In my sophomore year the professor of anatomy came into the spot-light on my little stage, and for one whole term he stood alone. The next year the Hall of Fame created in my own imagination held but one great figure. He was a surgeon. This was my senior year, when I had reached that stage of profound learning, when I "knew it all," when there was nothing left for me to learn and when the major faculty was a joke and when the State Board of Medical Examiners had ceased to have terrors for me, the only real factor in the great affairs of men was myself. A few years of practical work in a hospital served two good purposes. The first great achievement of experience was my

own awakening. The second was the discovery that there are three great factors in the healing art, the physician being one and a capable nurse the other two. The heroes of my student days all moved in retreat. I came to a better understanding of the physician's art, and to a more thorough and more accurate estimate of my own limitations, and I was brought to a perfect realization of the fact that nature is the great physician, and that the nurse is the first handmaid to that great healer.

The nurse, and by the nurse I mean all true nurses, has not yet gained her proper place in society. In individual cases nurses have been virtually kidnapped by appreciative patients and held in loving slavery. In some cases, I may say in quite a number of cases within my personal knowledge, big, brawny, burly men stricken to nigh the death by violent injuries have come back from the valley and the shadow, regained their former strength and then, with unexampled ingratitude and brutality, dragged the poor, defenceless and unprotected nurse right up the main aisle of a church and claimed her for his very own at a reduced salary. Then, too, I have seen big, strong, healthy, happy, intelligent young women in all the glory of perfect health stand by a patient laid low with a dreadful infectious disease, and when, after the battle with death had been fought and won, and when only one might emerge from the chamber of disease and death the one who walked out was the patient, and the one that was carried out was the nurse. I want to say that I stand in admiration of the men who went to their death on the field of battle. I pay tribute to all the martyrs of religion, and I applaud the efforts of that great army of students who are daily and hourly risking their lives in the discovery of new curative agents, proving drugs, but all these do not detract one iota from the honor and the glory and the appreciation that properly belong to the brave and intelligent women who consecrate their lives to the rigorous, and often thankless duties of a nurse.

There are here to-day many men and women who recall the days when the nurse of the small town and the nurses of the larger cities were broken down old women; sometimes gentlewomen in reduced circumstances who knew no more about scientific nursing then than a Hottentot knows of higher Christianity now. These kind old ladies did their best and undoubtedly served a good purpose, but they had neither the

training, the learning, the skill, nor the spirit that every graduate nurse here to-day undoubtedly possesses. I assert, and I base my assertion upon actual experience, that no physician is more attentive to his patient, that no lawyer is more conscientious to his client, no soldier more faithful to his country than the average trained nurse is loyal to her case. There is an old expression that in every regiment of soldiers there is a certain percentage of poltroons, a certain per cent. of physical cowards, a certain per cent. of undesirable citizens and a certain per cent. of would-be traitors. It is proposed that this ratio of derelicts will hold good in all walks of life. That every ten lawyers out of one thousand are thieves, that every ten doctors out of a thousand are disreputable, every ten ministers of the gospel out of one thousand indulge in affinities and soul sisters, and that the proportion of ten to one thousand will be maintained with greater or less regularity in every other field of professional activity. This proportion, I believe, will not hold good with nurses. The average nurse, who has lived her professional life in a thoroughly well organized institution such as that represented here to-day, is non-mercenary, she has high ideals, she knows her duty and she lives up to it; she is wholly unselfish, totally oblivious to personal peril and has long since forgotten the art of discriminating between the rich and the poor, the white and the black, the Jew and the Gentile. Her ministrations of mercy are bestowed with equal tenderness upon the young and the old, and she loves the babe born into her arms yesterday not a bit more nor a bit less than the one that will be born into her arms a month from now, or a year from now. She loves them all.

Without reflecting in any way upon any institution established for the teaching of the art of nursing, I cannot shut my eyes to the fact that young men and women who are not nurses in heart soon weary of their task and pass on to another and less exacting occupation. It takes grit, determination, force of character and a high order of moral courage to pass the ordeals leading up to a nurse's diploma. There is much more to nursing than the wearing of chic uniforms and the collection of what seems to be good pay. There are long vigils in the night, there are heart-aching, brain-racking tragedies. There are great struggles to be made and temptations to be resisted. There are impositions, cruel, brutal, heartless frauds practiced upon nurses, and above it all and

beyond it all is the element of ingratitude that comes from those thoughtless people, the recently rich, who dismiss a nurse of gentle breeding and careful training as they would a scullion. These things hurt, but they are all part of a nurse's duty and for the most part they are borne with Christian fortitude. Then again, there is lack of appreciation and of just reward in the many cases where cures are effected by careful nursing rather than intelligent medication. I myself have permitted appreciative patients to hang medals on me, figuratively, to wear professional halos o'er my head and to praise my skill for very excellent results obtained by intelligent nurses, rather than by any special services performed by me. I fear, too, that sometimes I have not been as generous with the nurse as I might have been. I fear that sometimes I have not bestowed proper praise and credit upon the loyal helper who stood guard over my patients days and weeks and months, when sometimes I felt weary of well-doing and finally, when the victory was won by nursing and care, I felt like a near hero.

I prophesy that the time will come when the nurse will occupy a still higher place in the estimation of the public than she does to-day; that the time will come when the nurse will be received in social life on a parity with other professional women. I know of no reason why they should not be to-day. They have the education, they have the morality, they have the appearance and they lack only the opportunity. It may be that the better nurses have no social ambitions, and it may be that it is a good thing that they have no ambitions to figure in fashionable circles. It is a sure thing that the time can never come when a nurse will find herself in a brain storm because of an engagement to attend a pink tea interfering with a call to save a human life.

It was my pleasure some few months ago to attend the dedication of a Nurses' Home. In equipment and appointment the building was quite like a modern hotel. Elevators, electric lights, telephones, baths, parlors and all the other usual comforts of a modern hotel were there, and unlike many of our best hotels, every room in this great institution was an outside room. I overheard a comely matron remark, "This place is really too fine for a lot of nurses." The gentleman with her, whom I happened to know, had just recovered from a very long and very serious illness, stopped and said, "There has

never yet been a building built that is quite good enough for the nurses of this hospital." The Commissioner, Hon. R. D. Helbard, subscribes to the sentiments absolutely, because it is to his efforts alone that our new and beautiful nurses' home is now nearing completion.

There is, however, and I might as well refer to the matter here and now, a tendency on the part of some inexperienced nurses to assume the duties that belong entirely to the physician. I would encourage any intelligent nurse to study medicine in a medical college and to abandon nursing during the period of study, but I have this to say—that a professional nurse who attempts the work of a physician is quite as great a menace to the health of a community as the so-called experienced nurse who attempts the specialized duties of the professional nurse. There is as much difference between the so-called experienced nurse and the professional nurse we have with us to-day, as there is between a butcher and a surgeon. There is nothing taught to a professional nurse in all her years of study and work that qualifies her to prescribe remedies or to alter the routine of treatment proposed by the physician in charge. Diagnosis is quite apart from nursing, and while every professional nurse should be qualified to detect and wise enough to instantly report any and every marked change in the condition of the patient under observation, there is seldom, if ever, any excuse for a nurse increasing or diminishing the quantities of a drug prescribed, or in the performance of any other of the physician's special duties. I charge you, my friends, who are about to go out into the world as nurses, to limit and to restrict your activities exclusively to the field in which you have been specifically instructed and to the work to which you are especially skilled—nursing.

Leave the physician to his art, and to the druggist his business, and you stick to nursing. It is a very much greater and a much better thing to be a first-class nurse than to be a no-class physician, or a poor-class pharmacist. I believe that you will find, as I found upon graduation, that I had my hands full and my brain full, and all of my time taken up with the onward march of medicine and surgery, and that I had no time to consider the allied arts. Nursing is advancing every hour. New methods, new materials, new appliances, new procedures are proved and attempted every day. A nurse, who wishes to be a credit to herself and her profession, must

be up to the minute in her art. The receipt for perpetual ignorance is—"Be satisfied with your opinions and content with your knowledge." She cannot keep pace with her sisters in the work if she devote half her time to the study of medicine and the other half to criticising physicians. She must be a nurse twenty-four hours a day, every day in the year, and if she be a nurse every day in the year she will be both a good woman and a great woman. God never created anything equal to a good woman.

The obligation which you now assume is one of trust; your vocation is of a confidential nature. Not only does the physician depend upon you for your thorough performance of your task, but, for the time being, you become a member of each family to which you are called. Too often the family skeleton will be exposed to your view. But it is not for you to so carefully inspect it as to know that it presents a callous, marking a site of previous fracture, or that it may possess a dislocation still unreduced. You are not supposed to see or hear aught but that which pertains to the sick room. Remember that a nurse can so conduct herself in a household that she may be the object of the most fullsome praise on the one hand, or become an incarnate tragedy on the other. Your trials will be many, and many families will expect you to be a judicious blend of an angel, a horse and a steam crane.

The few ethics of your calling which I have so imperfectly described are, as you will perceive, of the Golden Rule—"To do unto others as you would they should do unto you."

Impressed with the importance of your profession and desirous of elevating its standard, the State has undertaken to guard the admission thereto. It gives you the degree of **R. N.**—"Registered Nurse"—of which you may be as proud as the young medical graduate is of his **M. D.** I am assured your Alma Mater will always regard you as her daughter, taking the keenest interest in your welfare, and expecting you to turn to her for comfort and help in your anxieties and troubles. It would be pleasant and interesting, no doubt, if I were able to foretell your future, but I fear it would be an unprofitable task; besides, it lies with each one of you to make it what you will.

I am proud to say that the graduates from this Institution have maintained a standard inferior to none. It is up to

you to maintain this standard, and, if possible, to improve upon it. It is my wish that you lend dignity to your calling, and crown with glory the Metropolitan Hospital which has given you your training.

A REPLY TO DR. CARMICHAEL'S "HOMŒOPATHY."

Editor of the Hahnemannian Monthly.

The leading article in the August number of THE HAHNEMANNIAN MONTHLY, by Dr. Carmichael, contains several statements that are so at variance with preconceived pharmaceutical science, that they should be brought home to the medical profession and emphasized for they are "important—if true."

Dr. Carmichael writes: "Uniformity in that strongest liquid preparation—the tincture being one-tenth or 10 per cent. or the 1x dilution corresponds to the strongest solid preparation, the 1x trituration." This 1x Dr. Carmichael claims is stronger than the old tincture made according to Hahnemann's directions from "equal parts" of the drug and alcohol. This is his argument: "In this connection the attempts of some of our pharmacists to sell supposedly strong tinctures made by taking one part of the substance to one of alcohol are open to severe censure, as in nearly every instance such a small quantity of menstruum cannot exhaust the substance. In fact, most tinctures made in this fashion would be very weak in therapeutic effect, as the small quantity of menstruum used has dissolved out coloring matter and inert material, while most of the real active principles have not been reached." This is the point that is scientifically new, and which is important—if true.

One part drug macerated in nine parts alcohol makes, according to Dr. Carmichael, "a stronger tincture" than the macerating of equal parts of drug and alcohol! Boarding housekeepers ought to welcome this discovery and apply it to the making of the breakfast coffee. The "severest censure" must be placed on Dr. Hahnemann's shoulders, for he it was who introduced the method so abhorrent to Dr. Carmichael.

There are several other points in the paper that merit attention, but, with your permission, Mr. Editor, only one—a little bordering on the personal—will be dwelt on here. In several

portions of the paper are to be found statements concerning homœopathic pharmacists like the following:

"Their" (the physicians) "knowledge of the law of similars has made them satisfied that any kind of a preparation of aconite or sepia furnished by their homœopathic pharmacist would remove the symptoms caused by these remedies in their provings—and their faith in their pharmacist has been sublime. The pharmacists, however, have not all been true to the best interests of the homœopathic profession. In many instances they have for sordid pecuniary reasons pursued independent methods in the preparation of our remedies, endeavoring to make trade by exploiting their diversities and claiming superiority for the varying strengths of their preparations. This has existed in the face of the fact that since 1897 we have had an official standard pharmacopœia," etc.

The homœopathic pharmacists made their aconite and sepia (and other medicines) according to the directions given by Hahnemann in the "Materia Medica Pura" and "The Chronic Diseases." On the action of these medicines homœopathy grew and flourished, up to 1897 at least. That those methods were so bad and vicious is a matter to be regretted, but it would have been kinder for Dr. Carmichael to have spread the mantle of charity over them rather than to cast aspersions on them as he does.

One more quotation: "Refuse to take his 'just as good' or 'better' preparations." This reads a little queer in a scientific paper; reads almost like a proprietary medicine "ad." It is an exhortation to refuse all tinctures made according to the directions of Hahnemann, which—oh well! Dr. Carmichael ought to know that the sudden uprooting of century old pharmaceutical methods, methods highly successful and rigidly insisted on by the homœopathic medical profession—in the past, at least,—is no easy task and he should refrain from abuse and sneers at a class of men (the pharmacists) who, as a rule, are fairly conscientious and honest.

Finally, there are many conservative physicians who fear danger to the welfare of homœopathy in this "repudiation" of the Hahnemannian methods of pharmacy and who still insist on getting the old tinctures. What is to be done with them?

E. P. ANSHUTZ, M. D.

EDITORIAL

THE PENNSYLVANIA STATE SOCIETY MEETING.

EVERY homœopathic physician in the State ought to know by this time that the Homœopathic Medical Society of Pennsylvania will meet at Harrisburg, September 22-24, and every member of the homœopathic school ought to attend this meeting, if possible.

From a scientific standpoint there is every reason to believe that it will be one of the most profitable sessions held for many years. The chairmen of several of the important sections have made special efforts to secure interesting and timely papers, and promise a program of unusual interest.

It has often seemed to us that some practitioners fail to appreciate the value of attending such meetings. Many physicians, especially those situated in the smaller towns and villages are more or less isolated, medically speaking. Having no one with whom to discuss questions of professional interest, they are likely to lose their enthusiasm for medicine as a science or an art and become mere "pill peddlers," or from lack of contact with men of different views they become narrow and dogmatic in their opinions. Nothing is more profitable and more stimulating to the medical instincts of a physician under these conditions than friendly and instructive association with his brother practitioners at the annual meeting of our State Society.

But there is a more important reason still why our school should make a strong showing at Harrisburg this year. The meeting is to be held at the legislative centre of our State, and it is essential that we should make a good impression with the citizens and legislators gathered in that city. For the past two years the legal rights of homœopathic practitioners have been strongly attacked by the members of the allopathic school. While it is true that their efforts to belittle homœopathy were defeated at the last session of the legislature there is every reason to believe that they will be renewed at the next opportunity. Homœopathy is *not* dying in this State, and the

homœopathic practitioners of this Commonwealth are second to physicians of no school of practice either in skill, in scientific attainments or in their interest in sanitary and civic improvements. And it is our duty to demonstrate these facts by making the Harrisburg meeting one of the highest scientific and practical value, and by a large and enthusiastic gathering together of all the representative homœopathic practitioners of this State.

MEDICAL EDUCATION AND MEDICAL IDEALS.

THE Educational number of the Journal of the American Medical Association (August 15,) contains much interesting and useful data relating to the subject of medical education in the United States.

One of the most striking features of this report is the gradual decline in the number of medical students in all schools since 1905. The total number of students in all the colleges for the year ending June, 1908 was 22,602, a decrease of 1,674 below 1907, and 3,545 below 1905. Of the total number in the colleges during the year 1908, 20,936 were in attendance at the allopathic institutions, 891 at the homœopathic, 479 at the eclectic, 90 at the physiomedical, and 206 at the unclassifiable schools.

The attendance at the allopathic schools shows a decrease of 1,367 since last year, and 3,183 since 1905. The decrease in the homœopathic schools was 148 below the attendance of 1907, and 213 since 1905. The eclectic schools show a falling off of 66 since 1907, and 99 below 1905. The total number of medical graduates for the year ending June, 1908 was 4,741, a decrease of 239 below 1907 and of 859 below 1905. The number graduated from the allopathic schools was 4,370, or 221 less than 1907, and 756 less than 1905. From the homœopathic schools there were 215 graduates, or 10 less than 1907, and 61 less than 1905. The eclectic schools graduated 116, or 7 less than last year, and 37 less than 1905.

The total number of medical colleges in the United States is 153. There are 123 allopathic schools, or 8 less than last year; 16 homœopathic schools, or 1 less than last year; 8 eclectic schools, the same number as there was during the previous year.

From the data above given it will be seen that there is a gradual decrease in the number of young men entering upon the study of medicine. This is probably the result of several causes. The most obvious of these perhaps is the general, and as far as the allopathic school is concerned correct, impression that the medical profession is overcrowded. This is however, by no means true of the homœopathic branch of the profession. The demand for the homœopathic practitioners in the south, southwest and west is very extensive and even in the smaller towns and rural districts of the eastern section of the United States there are many excellent opportunities for practitioners of homœopathy. The raising of the entrance requirements of the medical colleges has also been a deterrent factor with some as has also the increased cost of a modern medical education.

The most potent factor of all, however, has been the realization by the young men of our country, that business and commercial pursuits offer far greater opportunities of success, from a financial standpoint, which in the mind of the average young man is the only kind of success worth considering. The medical man may point to the glories of a brilliant professional career and to the sense of satisfaction experienced by the true physician when he has rescued a human life from the jaws of the grave, but the youth replies that glory and self content do not pay rent, and the gratitude of fathers and mothers does not buy automobiles or theatre tickets. There is no doubt but that physicians are underpaid. How many men in our profession are struggling along to-day through long hours of exacting and brain racking work for a pittance that the average carpenter or plumber would indignantly refuse to accept! These things ought not so to be, and we believe the time is not far distant when the medical man, like his professional confrere the surgeon, will demand compensation proportionate with the skill and effort required in performing his duties. Nevertheless the man who enters the medical profession must be prepared to make financial success a secondary consideration or he is doomed to utter failure in the vast majority of instances. While the doctor deserves an honest return for his services it would be unreasonable to expect to accumulate from the treatment of the sick the fabulous sums that are in the possession of the successful captains of industry or that have been lured out of the pockets of the gullible

public by the Wall Street stock manipulators. While he should expect to earn a competent living in the practice of his chosen profession no young man should enter the portals of the medical college unless his chief desire and hope is to contribute his ability and his life to the amelioration of suffering and to the uplifting of his fellow men.

FRANK KRAFT, M. D.

To the members of the American Institute of Homœopathy, to those who are familiar with homœopathic literature, and to those who knew him personally, the death of Dr. Frank Kraft will be a matter of deep and sincere regret. For many years Dr. Kraft has been an active and earnest worker in the affairs of the Institute, and at its recent meeting at Kansas City was elected to his third term as Secretary of that body.

Dr. Kraft was born at Cincinnati, Ohio, in 1851, and graduated at the St. Louis Medical College in 1886. After his graduation he was associated with Dr. Allen, of Ann Arbor, in conducting the Medical Advance. Later he removed to Sylvania, Ohio, and engaged in general medical practice. In 1888 he became the editor of the American Homœopathist, now known as the American Physician, which position he held up to the time of his death.

Dr. Kraft's connection with the American Institute of Homœopathy has extended over a period of more than twenty years. He associated himself with that body shortly after his graduation in 1886 and became its official stenographer. From 1895 to 1900 he was recording secretary, and in 1906 was elected secretary.

The editorship of a medical journal and the arduous duties connected with the publication of the transactions of the Institute would have been beyond the capabilities of most physicians, but not only did Dr. Kraft fill both of these positions with credit and satisfaction, but in addition he has held the professorship of Materia Medica in the Cleveland Homœopathic Medical College since 1890.

The one great characteristic of Dr. Kraft's career was his industry and perseverance. Even during the last three years of his life, after he had been made an invalid by the onset of

paraplegia, resulting from a fall, he accomplished an amount of work that would have taxed the ability of many men in good health.

Although a successful and capable physician it is probably as a writer and editor that Dr. Kraft will be best remembered. His style of writing was unique, direct and abounding in originality and wit. He was a man of firm convictions and wrote fearlessly and without intimidation. Despite the fact that he did not hesitate to condemn what he thought to be wrong in no uncertain terms, he was a man who had few enemies and many friends. This may be attributed to the fact that his arguments were always free from bitterness and even those who disagreed with his judgment, admired his frankness and fairness.

The death of Dr. Kraft, coming as it does at a time when new and important departures are about to be made, will be a deep loss to the American Institute of Homœopathy. Owing to the fact that it is now proposed to publish the transactions of the Institute in the form of a journal instead of in the usual volume, many complications and problems will arise in the solution of which his extensive experience as secretary and as editor would have been of the utmost value.

It seems entirely in accord with the whole life of Dr. Kraft that he should have died as it were in the harness, working for the cause of homœopathy. Immediately after the Kansas City meeting of the Institute he became very weak and was on the verge of a collapse. He went to the home of his brother at St. Louis with the hope of recovering his strength. He rapidly became worse, however, and in spite of the efforts of his physicians he developed acute uremia and died on July 19th, 1908, in the fifty-seventh year of his age.

With the passing of Dr. Kraft homœopathy has lost another warm and earnest supporter. Each year the list of the old heroes of our school who meet with us no more grows larger and larger. Daily the call goes out for volunteers to take their place and to bear aloft the banner to which they have so faithfully clung until their lifeless hands no longer responded to the dictates of the spirit within. Then departing they leave behind us, not only the example of a life well spent, but a solemn obligation to fight as they have fought for the uplifting of humanity and for the victory of truth in the realm of medicine.

GLEANINGS

THE CURE OF CHRONIC BRONCHITIS BY RESPIRATORY GYMNASTICS.—Dr. H. E. Knopf, of Frankfort-on-Main, has had excellent results in the treatment of chronic bronchitis by respiratory exercises. His results in asthma also have been excellent. He employs the familiar movements for expanding the chest and deepening respiratory efforts. Which exercises are chosen is less important than to observe the patient's efforts accurately from the first and to continually call his attention to the faults in his respiratory movements. With this aim, he always has the patient exercise before a large mirror, with chest bared, so as to permit self-observation as to movements of thorax and abdomen. Inspiration is to be through the nose and expiration through the mouth, the latter accompanied by speaking "a" or "e" in a loud-whispered voice.

It has often been observed that many persons are not capable of taking deep respiration properly. Aside from the respiration being generally too superficial, its efficiency is compromised in that, while during inspiration the thorax, especially in its upper part, is expanded, at the same time the abdominal muscles contract and force the relaxed diaphragm upward. The result is, that the lower parts of the lungs, in which secretion commonly stagnates in chronic bronchitis, remain rather immovable, whereby both circulation and removal of mucus are rendered deficient. This type of respiration the author calls "Respiratio paradoxa."

The recovery usually progresses in such way that the patient substitutes proper breathing for paradoxical; the abdominal muscles, generally weak at the beginning, become stronger, the recti especially becoming prominent; the chest measurement increases in young persons, and in older persons the range of expansion at least increases. The spirometer usually shows increased lung capacity. The fat deposited in the abdominal wall often lessens decidedly. The bronchial secretion, whose separation is generally increased during the first days of treatment, becomes easier to expectorate and in from two to six weeks disappears.

In addition to the improvement in the condition of the respiratory tract the patient's appetite improves, constipation is overcome and anemia disappears.—*Berlin Klin. Woch.*, June 22, 1908.

THE TREATMENT OF EXOPHTHALMIC GOITRE WITH QUININE SULPHATE.—Lancereant and Paulesco (*Bull. de l'Acad. de Med.* No. 8, 1908). Quinine is recommended for the treatment of Graves's disease, upon the basis of the authors' experience with the remedy during several years. It is administered in an amount of 1-1.5 g. at night, divided into two to three portions, to be taken at intervals of a quarter of an hour, the treatment to be continued during 15 to 20 days of each month. The effect is prompt and remarkable, all the symptoms of the disease rapidly subsiding, except the goitre, but this will diminish in size up to a certain extent. In long-

standing cases, the combination with ergotine is advisable. Provided the treatment is carried out with the necessary persistence, the cures are claimed to be permanent. The cases upon which the authors' report is based all presented the typical symptoms of the disease. The administration of quinine was followed by a drop of temperature and disappearance of the palpitation. The remedy also had a decidedly favorable effect upon the exophthalmos, the vaso-dilatation and the general nervousness of these patients.—*Med. Rev. of Rev.*, Aug., 1908.

INDICAN REACTION.—Dr. Houghton's observations have led him to believe as follows: Urinary indican is a product of intestinal putrefaction. There may be putrefaction without the production of indol, but there cannot be indicanuria without putrefaction. A maximum excretion of indican, that is, an amount which on Folin's scale gives an index of 100 or over, may be safely relied on to indicate excessive intestinal putrefaction, and especially the intoxication arising therefrom. A maximum reaction which gives an index under 100 may be significant, but its interpretation should be strictly guarded by the general condition of the patient, that is, by the oxidizing and excretory capacity. A heavy indican reaction which markedly subsides under treatment undoubtedly indicates a lessening intoxication, but minor variations in the color index have no significance at present. No interpretation can be placed on a negative reaction, too many unsolved factors entering into the problem.—*American Journal of Medical Science*, April, 1908.

INFECTION OF THE MIDDLE EAR FOLLOWING TREATMENT OF THE NOSE AND THROAT.—By Dr. Ferdinand Alk (*Wiener klin. Rund.*). Stoerk has long since drawn attention to the need of gentleness in cleansing the nasal chambers. Any vigorous efforts to douche the nose are likely to result in direct damage to the ears and inflammation readily follows unwise efforts to use the syringe, in cleansing the nares. The writer believes that infective matter is even more likely to be carried to the ears during nasal washing if the patient happens to swallow while the nose is being syringed. The act of swallowing opens the Eustachian tube, and if acute rhinitis, ozena, accessory sinus disease, or even hypertrophic rhinitis be present, infection of the middle ear is thus easily brought about.

The author thinks the glass or rubber "boats" so widely advertised as the ideal nasal douche for "patients' own use," are especially likely to cause damage to the ears. The common habit of cleansing the nose by sniffing saline solution from the palm he also condemns, particularly if the solution is used cold. He has seen a number of cases where middle ear inflammation could be traced directly to this habit. He thinks the numerous cases of middle ear disease seen in ozena patients are to be explained in one of these ways.

The repeated and forcible sneezing of patients suffering from influenza is undoubtedly the cause of much of the middle ear infection found in these epidemics. The importance of never blowing the nose by compressing the two sides is also insisted upon. Patients and school children should be taught to cleanse the nose by blowing one side at a time, holding the other to give the necessary expulsion force. When both sides are compressed a valsalva inflation of the ears occurs and infected secretion is easily carried into the tubes.

Even in the most careful hands an occasional case of otitis media will follow operative treatment of the nose or naso-pharynx. The writer believes that palpation of the naso-pharynx for example, after an adenoid operation is responsible for such infection of this part and of the middle ear in some cases.

Posterior plugging of the nares is very likely to cause infection of the ears, especially if the plug is left in situ more than 24 hours.—*Post-Graduate*, Aug., 1908.

LOCAL REMEDY FOR PAIN.—The following is an excellent application for the relief of pain, whether it be from a neuralgia or a local inflammation from any cause:

R—Gum camphor	2 ounces.
Chloral hydrate	$\frac{1}{2}$ ounce.
Oil Wintergreen	$\frac{1}{2}$ ounce.
Fld. ext. cannabis Ind.	1 drachm.
Alcohol, q. s.	3 ounces.

M.—Sig.: External use.

The result of the above combination is a beautiful green oily liquid, the use of which will often not necessitate the use of the hypodermic to relieve pain.—*Albright's Office Practitioner*.

THE PROTRACTED USE OF DIGITALIS.—Dr. R. E. Achert (*The Lancet*, June 6, 1908,) gives the results of his study of this important subject:

The use of digitalis as a drug has been compared with that of the whip applied to an overworked horse. The *protracted use* of the drug may well be looked upon as crutches which enable sufferers from cardiac diseases to hobble along for a very long time. It was chance that led to the appreciation of this method. A highly intelligent engineer suffering from hypertrophy of the heart had for five years continuously taken small doses of digitalis—his state of health being under careful observation during that period—without any manifest phenomena of poisoning. Kussmaul utilized this case at the time in order to discuss the question of digitalis poisoning consequent upon so-called accumulation. This method of applying the drug by way of protracted medication and in almost homoeopathic doses, so to speak, dates back, however, much farther than is generally assumed. For from the *Charité-Annalen* one learns that Fräntzel (whose writings are an almost inexhaustible source of information for later authors) already employed the *dosis refracta* of digitalis.

It is certain that digitalis, administered in the way which was formerly customary when employed for a long period of time, even in small doses, had a so-called cumulative effect in many instances, whilst in other such medication proved quite ineffective. Such refractory cases, however, will always be met with. Eichhorst has shown that it is necessary for the cardiac muscle to be sufficiently capable of performing its function if digitalis is to take effect. Should this not be the case the effect does not ensue, and, provided the digitalis preparation used is a good and reliable one, its failure to produce an effect on the heart suggests a thoroughly unfavorable prognosis, for in such cases no other remedy is likely to prove of service.

Again, in other cases the cumulative effect takes place because the ex-

cretion of the active substances does not keep pace with the absorption, and strict supervision, therefore, becomes imperative. It is strange that such a cumulative effect is not constant. Some authors have noticed it and thereupon prohibited its protracted administration; others have not observed it or have done so but seldom, and continued its use. Naunyn may be right in advocating the view that in general there are no urgent reasons for fearing the cumulative effect of the drug. Until very recently, however, we had no explanation of the cumulative effect; experimental evidence was absolutely lacking. From the recent researches of Focke and others we know how varied is the amount of efficacious substances contained in digitalis leaves and how fluctuating is the proportion of active principles. Hence we can well imagine why a cumulative effect ensues in one case and remains absent in another. This subject had been made clearer and more understandable from the recent writings of Cloetta, who showed by experiments on animals that the effect produced by crystallized digitoxin differed from that due to the amorphous digitoxin.

Frankel was the first to make experiments on animals. He employed digitoxin in the crystallized form and found that injections of very small doses into cats were followed by cumulative effects. Now, when it was observed that digalen (digitoxinum soluble Cloetta) did not produce a cumulative effect in the respective patients the fact was very remarkable, considering that the majority of the authors looked upon the cumulative effect as being characteristic of a serviceable preparation. It was all the more puzzling, since in the experiments on animals no difference was observed in the effect produced on the cardiac muscle by digalen and crystallized digitoxin respectively (Freund, Sasaki). Experiments according to Frankel's method had hitherto, it is true, not yet been made. The fact was borne out by the increasing number of results obtained in practice showing that the administration of digalen to sufferers from cardiac diseases was not followed by cumulative effects. The author has not observed any such effect in the numerous cases under his care.

Cloetta's experiments on animals have clearly demonstrated that there is a difference between these preparations, inasmuch as after protracted digalen treatment no cumulative effect was observed in cats, whereas crystallized digitoxin caused in the same animals vomiting, salivation, and anorexia, besides arrhythmia. Cloetta has shown that it is not the molecular weight of the substance (280 as against 552 of crystallized digitoxin) which decides the toxic effect produced, but *the fact that the preparation has been crystallized.*

Several French preparations containing crystallized digitoxin, after trials made for the sake of verification, were found to have a cumulative effect. By way of analogy Cloetta refers to the behavior of an amorphous form of physostigmine, which also differs in its action from that of the crystallized form (Harnack). Hence the cumulative effect observed by many authors to follow the use of digitalis explains itself by the fact that in the digitalis leaves employed the amorphous digitoxin contained in the fresh preparations must have been transformed into a state analogous to the crystallized digitoxin, a fact which has likewise been proved by Cloetta. Cloetta's experimental researches are the first which have reliably demonstrated the fact that there is a digitalis preparation—namely, digalen—which does not possess any dangerous or disagreeable cumulative action.

In which of the cardiac diseases is it advisable to resort to protracted medication? Even the acute disorders frequently required a longer period of medication than that which was customary, and one often had recourse to the expedient of giving strophanthus or camphor in between, resuming the digitalis medication after an interval of several days. Even more than the temporarily disturbed valvular defects *do the chronic affections of the cardiac muscle need protracted treatment.* Seeing that these affections predominate in medical practice the prolonged use of digitalis assumes a still greater importance. In patients suffering from fatty heart, digitalis, as a rule, does not agree. In the case of fatty degeneration even digitalis cannot save what has been lost already. In neurotic diseases of the heart good results are but seldom seen except when the cardiac muscle is involved. Accordingly the following indications are left as being the most important—viz., myocarditis in all stages and of any pathogenesis, myasthenia cordis chronica with or without dilatation and hypertrophy, and cardiac weakness in the case of hypertrophy of the left side of the heart after nephritis of long standing.

Kussmaul and Naunyn recommended protracted medication in all cases in which the usual mode of treatment did not produce long-lasting results and in which the phenomena of cardiac insufficiency reappeared within a very short time. They prescribed the digitalis leaves in substance in the form of powders or pills, 0.05 to 0.1 gramme per day; if required the dose was given twice a day. When the effect diminished the dose was afterwards increased. These authors laid stress on the fact that after long-continued use a lasting result might be ultimately obtained and then digitalis might be dispensed with.

This mode of treatment may, it is true, in conjunction with strict supervision, be free from danger and be serviceable, but in view of the unreliability of the drug one must always be prepared to face a cumulative effect. Seeing, however, that in digalen we have at our disposal a preparation—in fact, the only one of the numerous digitails preparations produced during the last few years—which is exempt from a cumulative effect, it is better than any other officinal preparation suited for protracted medication, as here all the dangers inherent in the other preparations are absent. From 7 to 14 drops (= 6 to 12 minims) are administered once or twice per diem in the case of protracted medication; this small dose suffices to maintain the compensation in suitable cases.

Since the introduction of digalen the author has given it in all suitable cases and always with satisfactory results. No disagreeable gastro-intestinal disturbances at any time manifested themselves. Of all the allied preparations the author deems digalen the most suitable for protracted medication.—*The Post-Graduate, Aug., 1908.*

AMERICAN MINERAL WATERS IN THE LIGHT OF RECENT ANALYSES.—Crook, after a careful study of these waters presents the following conclusions in the *Jour. A. M. A.* of March 14, 1908:

1. A great majority of the advertised analyses of our mineral waters were made many years since when methods were not so exact as they are at the present day.

2. Some mineral springs are sensibly influenced by the wetness or dryness of the season, both in strength and in volume; the greater the volume of the water the weaker it is in mineral ingredients. Examine.

tions of such springs at different stages would undoubtedly yield dissimilar results.

3. While many springs are of deep origin and show no apparent fluctuations in their rate of flow, we have no positive proof that even these have not become more or less modified in character during the long period since the old analyses were made. The subterranean aqueous current, which constitutes a spring when it reaches the surface, cannot be counted on continuously to come in contact with earth strata which yield a uniform product to its solvent power. Underground streams, as well as those on the surface, are liable to change their course, and while losing certain of their former contents may acquire new ones.

4. The fact must not be overlooked that the Government analyses were made in each case from samples purchased in the open market. It is therefore possible that some of the waters examined by the bureau chemists were spurious or adulterated.

5. The chemical ingredients set forth in the tables of contents of mineral springs represent hypothetical combinations only. No chemist maintains that the salts he sets down in his analysis exist in exactly that form in the water. He ascertains by his tests the various acid and basic ions existing in the water, and, as nearly as possible, in what amounts. He then reasons that they unite to form the salts which go to make up his hypothetical table of contents, which is presented as the analysis. It is hardly conceivable that any two chemists separately examining a specimen of spring water taken from its source, even at the same moment, would reach exactly the same result in stating the theoretical combinations. How much greater discrepancy might reasonably be expected in the case of analyses separated by periods of thirty or forty years!

CURE OF MUCOMEMBRANOUS ENTERITIS BY A FRIGHT.—The *Gazette Medicale de Nantes* contains in a recent number a communication from Vance relating that he had been treating for two or three months a patient with mucomembranous enteritis without appreciable benefit. The patient was a nervous, arthritic woman of 30, but vigorous and fond of outdoor sports. During the course of the enteritis she lost several pounds and was frequently so weak that she could not leave her bed. A fire broke out in her room one night, causing great alarm, and two days later all symptoms of the intestinal trouble had vanished and they have not returned during the six months since, although the patient abandoned all therapeutic and dietetic measures.—*Jour. A. M. A.*

PAIN in the ear, increased on traction on the auricle, with slight diminution, if any, of hearing, suggests a furuncle in the meatus. Introduce the speculum with great care. The probe will often reveal a point of marked tenderness.

Don't incise a furuncle of the auditory canal. Tampon the canal with a wick of cotton or gauze saturated with liquor Burwii (acetate of aluminum), resorcin-alcohol, or balsam of Peru, and wait until pain has disappeared. Hot applications may be needed. A furuncle pointing and threatening to burst may be opened with a superficial cut. Avoid wiping the pus along the canal, the result is almost inevitably a fresh crop of furuncles.—*Amer. Jour. of Surgery.*

THE main effect of medical laws has thus far been to require an examination from all educated physicians, but to allow all sorts of healers to follow their calling without any examination or registration whatever. It is true that legislation has to some extent diminished the number of quacks, but it has not touched at all the great army of so-called healers who do not use drugs or employ surgical procedures.—*Edward Beecher Hooker, M. D.*

TO REMOVE SILVER NITRATE STAINS FROM SKIN:

Hydrargyri bichloridi,

Ammonii chloridi, aa10 gm.

Aquæ80 gm.

The stain is said to disappear immediately.—*Therap. Monatsschrift.*

BURNS AND SCALDS.—Except for those which are very deep or severe, the following is recommended by Moran:

R—Acidi carbolici, 1.

Balsam, peru, 5.

Ol. ricini, 94.

This is poured on gauze or cotton and applied to wound. It should be renewed daily.—*Merck's Archives.*

LOCAL ANESTHETIC.—Fifteen parts of ether, ten parts of chloral, and one part of menthol mixed and used as a spray in a hand atomizer will anesthetize locally so that minor surgical operations may be painlessly performed as to the removal of moles or other abnormal growths, opening abscesses, felons, etc.—*Albright's Office Practitioner.*

THE TREATMENT OF PERITONITIS.—Siegel (*Wiener klinische Rundschau*, Jahrg. xxi, No. 52) says that peritonitis is nowadays frequently met by the busy practitioner, and that it must be diagnosed at its beginning, so that by early treatment we may avoid the advanced form of the disease. It must be borne in mind that almost every general peritonitis began as a local peritonitis, and that the latter is in almost every case curable. On account of the fact that the individual symptoms of peritonitis are uncertain the disease is rendered very difficult of diagnosis. The most experienced surgeons have operated for what appeared to be peritonitis, yet no peritonitis was found. While the author considers every operation which is unnecessary to be harmful, nevertheless errors in cases of peritonitis cannot always be avoided. However, mistakes are oftenest made in considering peritonitis absent when it really is present. Surgeons see many cases of peritonitis which they barely save by operation, and also lose some which they are convinced might have been saved by earlier operation. If one has a patient with severe abdominal pain, perhaps ushered in with vomiting, who shows even a slight rise of temperature with a local point tender to pressure, and at this point contraction and rigidity of the belly wall, this case should be treated as one of peritonitis.

While it may be true that in rare cases spontaneous cure of peritonitis takes place, yet it is well not to depend upon this, especially in the suppurative forms, for which the treatment is surgical. The most important step in the operation is the removal of the source of infection and the

walling off and drainage of the pus. It is often difficult to find in the abdomen the source of infection, but if it is not found the operation is unsatisfactory and the result uncertain. In diffuse peritonitis several incisions must be made in order to give exit to the pus, and through these gauze or drainage-tubes should be put in. In this way the time of operation is not prolonged. Lengthy operations with eventration and prolonged irrigation are conducive to severe shock and should be avoided. If there is much distention of the intestines and vomiting, then it is advisable to produce a fecal fistula in the small intestine. The author has in this way saved a series of patients who would otherwise have been lost. Sometimes the fistula has been established as late as eight days after the first operation in cases in which the disease did not yield well.

The after-treatment of these cases is very important. The author formerly used atropine, but has recently lost confidence in it. In reference to the use of salt solution, while he still uses it in diffuse peritonitis, he finds its good influence to be only temporary. Through careless use of salt solution more harm than good may be done. The author has generally succeeded with 200 to 300 cubic centimeters given per rectum two or three times a day. However, in marked paralysis of the intestine better results are obtained by allowing the intestine to have absolute rest.

If there is much vomiting the stomach should be washed out, and the heart should be sustained by camphor and ether. Hot compresses upon the abdomen are often of use. Nutrient enemas should not be given, as one gains little by forced feeding so long as vomiting lasts. Morphine may be used in small doses for the pain, but not until the diagnosis is established, for its early use masks the symptoms and interferes with diagnosis. The results of operation depend upon the time at which it is done. The earlier the case is operated upon, the more favorable the results will be. Cases are seen by the author much earlier now than ten years ago. In his earlier experience he lost four cases out of ten, while in the last two years out of forty cases only five have been lost. The most important thing is the proper treatment of the local focus of peritonitis, by which means it is probable that nearly all cases may be saved.—*Therap. Gazette, Aug., 1908.*

INTRAGLANDULAR ENUCLEATION FOR GOITRE.—Reverdin states that intraglandular enucleation presents the following advantages:

It does not expose neighboring structures (recurrents, etc.) to immediate or subsequent lesions.

It saves all the healthy thyroid tissue as well as the parathyroids, consequently avoids thyroid or parathyroid insufficiency.

It leaves, in case of recurrence, the possibility of intervention without exposing the patient to the dangers of myxedema.

Its results are very good from the cosmetic point of view, and its rate of mortality is very low.

The danger of hemorrhage that might occur has been much exaggerated, and if recurrences are more frequent than after partial thyroidectomy, they are amenable to operation without serious consequences.

Intraglandular enucleation is not useful except for benign encysted tumors, liquid or solid. It is contraindicated if the tumors are exceedingly

vascular, or adherent to the enveloping gland, because of previous treatment or inflammation.—*Surgery, Gynecology and Obstetrics, March, 1908.*

NASAL HAEMORRHAGE.—For the control of nasal hæmorrhage tampons can be readily prepared as follows: A layer of cotton is wound around a penholder or similar object until the desired thickness is obtained and then withdrawn. The cotton cylinder is then moistened, squeezed dry and inserted into the nasal cavity. If the projecting end of the tampon is now moistened it will swell up and thus produce sufficient compression.—*International Journal of Surgery.*

THE TREATMENT OF BEDSORES.—R. Teller, Giessen, *Muenchener Medizinische Wochenschrift*, May 12, 1908. There are cases where decubitus cannot be avoided, especially in paralyzed patients, in marked asthenia, etc. Prophylactically, strict cleanliness, care of the skin, air cushions, water beds, etc., are generally employed. After a bedsore has developed a water bath is used in large hospitals, but is not practicable everywhere. The author keeps the affected skin dry by free use of Lassar's paste. He cleans up the infected necrotic granulations by a small wet dressing of aluminum acetate or hydrogen peroxid and dusts the ulcer with bismuth subgallate. To bring about more rapid healing the wound edges are massaged daily for from two to ten minutes. A warm full bath is given, the patient allowed to rest for an hour or more and then the local massage is applied. Finally the dressing is renewed. Under this treatment the most stubborn bedsores rapidly begin to regress and heal.—*Amer. Jour. of Surgery.*

HOW TO TREAT A CARBUNCLE.—Farnsworth, *Medical Times*, states that he has for a long time been treating carbuncles almost painlessly, satisfactorily aborting them in every case. It is neither by puncture, nor incision, nor poultice. He has before presented his plan to the profession, but it is probably so simple that they have overlooked it.

When the carbuncle is diagnosed, or in a later stage, apply a plaster of gum opium; if that is not convenient, powdered opium mixed with a little mercurial ointment (unguentum hydrargyri). It relieves the pain and controls the inflammation and the increase in size. In two or three days a limited amount of suppuration will take place and the small core come out.

The plaster should be placed early, but if considerable enlargement and induration has taken place, it will be just as soothing and effectual. The after-treatment should be the thorough washing out of the cavity with a stream of water or an antiseptic solution. Healing begins at once. The writer has tested it in many cases and is certain of the result. The same treatment aborts boils. The sharp pain, the tension, and formation of pus are prevented, and the whole is over in a few days. Recently the author had occasion to try the opium treatment on infected sores, presumably caused by the bites of some insect. The lumps soon pointed and a core of pus came out, leaving a little abscess that soon healed. Crude opium serves the purpose, but the cure is accelerated by mercurial ointment later on.

WHEN TO OPERATE IN PERITONITIS.—Dr. J. B. Murphy gives the following advice: "I would say, in answer to the question, 'When shall we operate?' for appendicitis, the answer should be: Immediately after making the diagnosis; and the diagnosis should be and can best be made within the first six or eight hours after the onset. There is no time, however, in the course of the disease when one is justified in waiting, whether it be the first, third, fifth, seventh, ninth or eleventh day, with emphasis on the odd day for luck.

"From the symptoms we are unable to tell of many of the pathologic conditions and their progress in the abdomen from day to day. From the symptoms and signs we are always able to make the diagnosis in the first 24 hours.

"Now, with reference to the peritonitis, my article on suppurative peritonitis includes the perforative variety; that is:

"(a) Perforations of the stomach.

"(b) Perforations of the duodenum.

"(c) Perforations of the intestines—principally typhoid—and

"(d) Direct perforations of the appendix into the free peritoneal cavity.

"It does not include the cases of circumscribed abscess with large quantities of purulent fluid in the peritoneum. These are not perforative cases, and practically all get well on the old treatment.

"I have had up to date 43 consecutive cases of perforative peritonitis in four and one-half years, and in all there was a direct communication from the peritoneum into the opening in the intestine, and in none were there circumscribed or encapsulating adhesions. Of these, 42 of the patients are living.

"The technique consists in:

"1. Opening the peritoneal cavity.

"2. Locating the point of leakage.

"3. Closing the point of leakage.

"4. Inserting a large drain into the pelvis, and if the infection be in the upper abdomen, also one directly from the wound to the point of primary infection.

"5. Placing the patient in extreme Fowler position.

"6. Instituting continuous proctoclysis, so that not less than 18 pints of salt solution are administered and absorbed in 24 hours. If it is not absorbed, it is not properly administered.

"7. Giving 20 c.c. of streptolytic serum each 12 hours until the temperature, pulse and other symptoms subside. Usually not over four or five doses are required.

"In doing the operation remember one thing: Get in quickly, and get out equally quickly. Do not manipulate, handle, sponge, wash or otherwise maltreat the intestines.

"Have the anæsthetic given by a competent anæsthetist, that can put the patient to sleep with æther in from three to five minutes.

"I consider it useless to operate on moribund cases. However, I must say that I have operated on every case that has come under my observation, regardless of the patient's condition, with the results above given. The diagnosis of perforative peritonitis should be made early, and when made it is cowardly, indeed, if not criminal, not to operate—hypocritically called conservative."—*Internat. Jour. of Surgery.*

CHLOASMA OF PREGNANCY.—A much-used prescription for the "spots" of pregnancy is this:

R—Oxide of zinc, gr. iij.
 Ammoniate of mercury, gr. ij.
 Cacao butter, ℥iiss.
 Castor oil, ℥iiss.
 Essence of rose, gtt. xv.

This is to be applied to the affected parts of the face night and morning.
 —*Monthly Ency. Medicine.*

VERONAL DERMATITIS. W. House in the *Jour. of A. M. A.*, discusses dermatitis produced by Veronal. He contends that the condition produced is rather that of an erythema than a dermatitis. 15 grains of veronal were given to a patient, which produced sleep but was followed by stupor and vertigo, the patient's body on awakening, being covered with an eruption which was symmetrically distributed. The face was congested, red and swollen. The skin on the back of the body was intensely hyperemic as in scarlet fever and appeared as angry as erysipelas, blotches in size from a quarter to a half dollar, separated by spaces averaging about an inch, cover the front of the body, arms and legs. A dark red papule marked the centre of each blotch, which was surrounded by a less intense raised area, which shaded rather sharply into the normal skin. On the limbs the most of the blotches were oval, while those on the body were circular. There was no eruption about the axilla, which appeared intensely white in contrast; the temperature arose as high as 103, pulse to 112 and the general condition suggested severe toxemia. The following day the temperature dropped to 99, rising again to 100 in the afternoon and returned to normal the next day. The rash and toxic symptoms gradually disappearing leaving nothing but a number of small spots marking the sites of former lesions.

RALPH BERNSTEIN.

ICHTHYOSIS. W. A. Jamison in the *Brit. Med. Jour.*, lays great stress on producing marked exfoliation in the treatment of this disease. He advises a soothing, softening medium composed of resorcin, glycerin and starch. He further recommends a superfatted soap containing resorcin and salicylic acid, contending that this prepares for subsequent glycerinization; the administration of cod liver oil in small doses at night is considered to be of service.

RALPH BERNSTEIN.

PRURITUS—PILOCARPIN IN. J. J. Reid in the *Med. Record*, advises the treatment of pruritis vulvæ and other forms of this affection by the use of pilocarpin in doses from $\frac{1}{8}$ to $\frac{1}{4}$ grs.

RALPH BERNSTEIN.

DIABETIC DERMATOSES. M. Morris, in the *Practitioner* discusses the treatment of the dermatoses to be found in diabetic conditions. He advises the importance of treating the underlying constitutional state; and gives daily alkaline baths. Applications of weak solutions of permanganate of potash or of sodium borate, should as well be applied several times a day and a

soothing powder containing bismuth or zinc oxide should be powdered on; parts coming in contact with one another should be kept separated with small muslin bags; a weak resorcin ointment should be applied when the acute symptoms subside.

RALPH BERNSTEIN.

SOME PRECAUTIONS IN YOUR EYE WORK. Test the vision carefully in every case of ocular injury, even if it is apparently nothing but a "black eye."

Recurrent attacks of inflamed lids, conjunctivitis, or corneal ulcer in one eye, suggest an infected lachrymal sac. Pressure over the inner canthus will generally cause muco pus to present in the puncta.

When a grey or blue eye turns brown and loses sight, after an injury, one may be almost sure of a chip of steel or iron in the globe, that is slowly rusting (siderosis).

Avoid bichloride solutions in eye work, as much as possible. After cocaine has been used, there may be a permanent opacity of the cornea.

A large pupil in an aged patient is a danger signal, suggesting glaucoma with insidious onset.

After using a mydriatic in an adult, instil pilocarpin 1 per cent. and keep the patient under observation until the pupil contracts, for fear of glaucoma.

After using cocaine solution in the eye, be sure to keep it well irrigated or protected by a bland ointment or bandaged, to prevent drying and subsequent erosion.

In looking for a foreign body on the surface of the eye, do not forget to examine the tear points with care. An incarcerated lash or cut end of hair may be the cause of the trouble.

"Black eye" developing in an infant, without any history of injury, should always arouse suspicion of scurvy (Barlow's disease). It is generally distinguished by lack of swelling, absence of bruise or redness of lids, and rapid gravitation of the blue discoloration to the lower lid and cheek. The orbital hemorrhage may take place on the other side, after a short interval.—*The Homœopathic Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

GLAUCOMA. T. Hudson claims that the causal factor of glaucoma exists in a primary obstruction and closure of the pectinate ligament, due to sclerosis of the fibrous structure about the filtration area, and all other changes are secondary to this. The hindrance to the aqueous outflow does not arise from the peripheral anterior synechia so frequently met with in glaucoma, but is caused by the closure of the inter spaces of the pectinate ligament in consequence of the fibrosis of the cells of its connective tissue stroma and the formation of a homogeneous membrane around these fibrous bundles, leading to the endothelial cells being first brought into contact, and then welding together the fibrous structures. The iris, in addition, is not only a diaphragm, but an absorbing surface accessory to the pectinate ligament, and when the latter is obstructed the iris has to do the whole of the drainage. When the pupil becomes dilate, its area becomes lessened and the crypt near the pupil becomes closed, and thus the blocking of the angle of the anterior chamber is a consequence of the acute

iritic edema, and not the cause of the glaucoma. The edema of the ciliary body relaxes the suspensory ligament, thus allowing the lens to become more globular and consequently causing shallowing of the anterior chamber.

By modification in these processes, acute, subacute and chronic glaucoma are explained. The reason why myotics cause diminution in tension is because the crypts on the surface of the iris become open and the aqueous is able to find its way out. Mydriatics act in just the opposite way. After an iridectomy, the stump of the iris shows no sign of healing. The operation opens up permanently channels by which the fluid can drain away.

The operation will always be effective unless the iris tissue is too atrophied and degenerated.—*The Homœopathic Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

HOW LONG SHOULD A PUERPERA BE CONFINED IN BED? Bouchacourt is opposed to keeping a woman in bed for 8 days after delivery, and believes that œdema of the uterus is developed thereby which hinders involution. Lying upon the back also favors retention of the lochia predisposing to infection. A partly upright position is more advisable, and lying upon the abdomen is rather beneficial. In favorable cases in healthy women he allows the patient to be raised up in bed. But if there is danger of infection, if the perineum is lacerated, or if the abdominal walls are relaxed or varices or other diseased conditions are present, or if there were anomalies in the delivery such as hydramnios, multiple pregnancy, or an over-distention of the uterus from any other cause, rest in bed should of course be prolonged. Moving about the room or rest on a couch is permitted at the expiration of two weeks, if other conditions are favorable and there is no evidence of infection, the lochia diminished, and the uterus small. The first bath may be taken a few days after getting up, when the lochia have ceased.—*Abstr. from Zentralbl. f. Gyn., 1908, 90.*

THEODORE J. GRAMM, M. D.

THE MORTALITY IN SWITZERLAND FROM SEPTIC PUERPERAL PROCESSES. From a series of statistics compiled by Perrin, he finds that 0.35% of all puerpera die from puerperal fever, and of all fatal cases in the puerperal period 55% are ascribable to this cause. Of deaths following abortion two-thirds occur from septic processes. The circumstances surrounding illegitimate births have not the importance usually accorded them. Defective hygienic and sanitary conditions do not appear particularly to favor puerperal fever. They certainly are not here as important as in other infective diseases, particularly tuberculosis. 13% of the fatal cases were treated in the hospital, but only 0.27% were taken sick in the hospital. In general, it may be stated that even yet infection is the real determining factor in the mortality percentage in puerperal women. Every fourth fatal case of puerperal fever can be traced to midwives. Ten times in a hundred cases gonorrhœa was present and 20 times criminal abortion was the cause.—*Abstr. from Zentralbl. f. Gyn., 1908, 91.*

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

A FEW "RIFLE SHOT" PRESCRIPTIONS is the title of an interesting reprint by Dr. F. C. Askenstedt, of Louisville, in which he relates the cure of four cases, two of headaches, one of menorrhagia and one of dysmenorrhœa. That the treatment should be a scientific demonstration of homœopathy, Dr. Askenstedt conformed to the following self-imposed conditions:

- (1) The case should be a chronic one.
- (2) In order to eliminate the possibility of mental suggestion, it should be one which has resisted non-homœopathic treatment.
- (3) Nothing but the homœopathic remedy—the single remedy, of course—should be prescribed; no palliative medicine, no change in diet or surroundings.
- (4) Improvement should begin a short time after the administration of the medicine.
- (5) The remedy should be designated, independently, by a majority of homœopathic physicians informed of symptomatology of the case—or better still—who themselves have examined the patient.

A copy of the article may be had upon application to its author.

BORACIC ACID. By M. E. Douglass, M. D., Baltimore. In excessive doses it depresses the spinal centers and has produced depression of the heart, with slow, feeble pulse, reaction of temperature and disturbed respiration, nausea, vomiting, hiccough, great mental depression, impaired mental action, dullness, and ultimately coma. There are cutaneous irritation and eruption with ecchymosis and edema. It is eliminated through all the emunctories.

As an antiseptic application, the agent is not poisonous, enough will hardly be applied to produce serious results.

Its germ-destroying properties are not considered great, and yet its influence is of such a character that it has come into general use as a dressing powder for wounds, and its cleanly, odorless, non-toxic, and non-irritating character gives it great popularity as a dry dressing after surgical operations of whatever character.

As a mouth wash in cases of ulceration, in aphthous or gangrenous stomatitis, it is useful and acceptable to the patient. It has been successfully used in diphtheria, both as a gargle and for its constitutional influences.

To a saturated solution of boric acid, a few grains of thymol or eucalyptol can be added and a most serviceable antiseptic for general external

or internal use may be improvised. Its odor and taste can both be made very pleasant as a mouth or throat wash, or as a spray in the nasal cavity. It may be so combined as to answer an excellent purpose as an intestinal antiseptic where such an agent is needed. Boric acid is freely applied to erysipelas with excellent results, it is applicable in the form of a wet dressing on gauze and is quickly soothing and healing.

In saturated solution it forms a serviceable wet dressing for infected wounds, whilst evaporation is prevented by the application of oiled silk or rubber protective. It may be left on for 24 or 48 hours if necessary and the virulence of the infection with the inflammation quickly abates. Applied to boils or carbuncles, the same wet dressing is more effective than poultices.

It is excellent in its application to open abscesses that have been thoroughly cleansed from pus and put into an aseptic condition, the dry acid here freely powdered on the granulating surfaces quickly promotes the healing.

Bromidrosis of the feet or of the axilla or other local forms is successfully treated with this solution. Bromidrosis universalis will yield to its use promptly, but thoroughly alterative treatment is usually needed in these cases.

In cystitis, its solution is used freely as an irrigating fluid, especially if the urine is ammoniacal, and it is acknowledged to be of much value and perfectly safe. It has a soothing and healing influence upon mucous surfaces which is most kindly. In cases of this nature it is also given internally in doses of from six to ten grains every three hours. It is applied freely to ulcers of the womb after thorough cleansing, and it quickly promotes healing.

A solution of boric acid to which a small quantity of morphine is added, sometimes is very prompt in its action on various forms of pruritus wherever existing.

It forms an excellent wash in the common forms of inflammation of the eyes and may be used freely and safely, as it is non-irritating. It is especially valuable in ophthalmia neonatorum. It is used in conjunctivitis and granular lids. A solution of five grains to the ounce is of sufficient strength for the eyes.—*Am. Physician.*

DISPENSING OF POISONS. Much has been written on this subject, yet we can never sound the note of warning too often, especially to those whose experience with the handling of active poisons has been limited. The possible danger of carelessly handling and having vials containing active poisons mixed with other vials containing drugs is great, no matter who handles them, for no one is infallible.

The writer, only a few days ago, had the painful experience to administer antidotes to a young physician who had taken fifteen grains of bichloride of mercury, tablet form, in a mistake for lithium tablets.

He being of a rheumatic diathesis and his kidneys being somewhat inactive, he was in the habit of taking two lithium tablets in a glass of water before retiring. During the day he had bought at the drug store bichloride tablets which were dispensed in a vial which was almost identical with the vial containing the lithium tablets. He placed the vial containing the bichloride on the same shelf with the lithium vial, and that evening he dis-

solved two bichloride tablets in a glass of water, thinking he had the lithium without reading the label, and did not discover his error until he had all of the solution in his stomach.

This was, of course, a bad and painful mistake on part of the doctor, but had the bichloride been dispensed in a special "poison bottle," he would at once have discovered his error as soon as he touched the bottle. All poisons should be dispensed in rough and colored bottles so that they could be distinguished readily at night by the touch of the hand.

It is true that every one should always read the label before taking any medicine, but why not have double precaution when no expense or even energy is required to give us such protection.

It would also be better to have all bichloride solutions and tablets colored with methylene blue, which has no influence on the antiseptic and germicidal properties of the mercury.—*Monthly Cyclopadia and Med. Bulletin.*

CASES CURED WITH INTERNAL REMEDY ONLY. By W. L. Bywater, M. D., Iowa City, Ia. Mrs. J., aged 32, called at my office on October 13, 1907, with both ears suppurating following an attack of scarlet fever, had been discharging continuously for six or seven years. The discharge was of an extremely foul odor. Large perforations were observed in both tympanic membranes. I suggested that I treat her daily; she informed me that this would be impossible as she lived thirteen miles in the country and could not be away from home. I told her that treatment would in that case be necessarily very unsatisfactory, but that I would give her a remedy to take. I also instructed her to keep the ears as clean as she could by wiping them out with dry cotton.

Silicea 30 was prescribed, one dose on retiring. Three weeks later, on November 3d, she returned. On examination I found one ear entirely well, and the only way one could detect any discharge in the other ear was from the odor on the cotton used in wiping out the ear. On her last visit, December 1, 1907, no discharge, ears healed with the exception of the large perforation which remained. This case had no local applications of any kind, and silicea 30 was the only internal remedy.

Dr. K., aged 38, wrote me that he had a mucopurulent discharge from the antrum. From his description of the discharge, and other symptoms, I gave him kali bichromicum. I heard nothing more from him and supposed he was cured, until October, 1907, nearly two years after my prescription, he informed me that the discharge had continued right along, being aggravated at times from catching cold, etc., and he had now come for an operation. After a careful examination I suggested that we first try a remedy, and if it failed then I would operate. He agreed, and I put him upon hydrastis 3x. Nothing else was used. Within a month he wrote me that the discharge had entirely ceased and that he was feeling the best he had felt in three years. In a letter which I received from him a few weeks ago (May, 1908), he stated that he had had no trouble since taking the remedy.

Mrs. G., aged 35, after going the rounds of the old school specialists came to me as a last resort. She had never taken homœopathic medicine. An examination revealed partial atrophy of the auditory nerve. The watch could be heard upon contact with the right ear, but not with the left.

Could not hear the telephone ring or the clock strike. Much roaring in the ears. I could get no specific history; in fact, the only thing she could tell in addition to the loss of hearing was that she had fallen and struck her head upon the brick pavement. I could see no connection between the fall and the loss of hearing; but not knowing what else to do, I prescribed china 3x. The ears began to clear up, hearing returned gradually until patient could hear the watch from twelve to fifteen inches with either ear. I gave her the last prescription on July 28, 1907. When she paid her bill she remarked that of all the money she had ever paid physicians she begrudged that the least of any.—*The Hom. E., E. and T. Jour.*

EXPERIMENTS WITH SCOPOLAMIN-MORPHIN. By Edgar R. Bryant, A. M., M. D., San Francisco, Cal. About two years ago, after considerable deliberation, and contrary to the opinions of other investigators and writers, I made the statement that scopolamin is a harmless drug when administered in ordinary doses, and that no death alleged to be due to scopolamin-morphin could have been produced by scopolamin. Since then I have continued to investigate, and the following is a synopsis of my experiments with scopolamin:

I found that when three equal doses were given at intervals of an hour, the action of the drug was more pronounced after the second than after the third dose. This enabled me to increase the dosage at subsequent experiments with safety, for if two-thirds of a dose did not cause dangerous symptoms, the remaining third could be given without hesitation. At my first experiment one patient received one dose of scopolamin gr. 1-30, and it produced a quieting result, the patient being nervous from alcoholic poisoning.

Six patients, during several experiments, received scopolamin gr. 1-10, in three divided doses at hourly intervals. Characteristic symptoms of the drug were exhibited in all except one person, who was moribund from epithelioma of the tongue.

Scopolamin gr. $\frac{1}{4}$ in three divided doses was given to six different patients at hourly intervals, producing interesting but not alarming symptoms. A quarter of a grain of the drug is an excellent dose for the study of its physiological effects; larger doses produce a stronger narcotic effect and fewer characteristic symptoms.

I should advise anyone desirous of experimenting with scopolamin to use no stronger doses than gr. 1-10, or gr. $\frac{1}{4}$ in the beginning. Almost any patient will tolerate gr. $\frac{1}{4}$ of the drug; stronger doses can no doubt be given with impunity, as I have proved by administering two grains without producing serious symptoms.

The following concerning scopolamin-morphin will explain my reasons for the use of these drugs:

1. There has been no death record from injection of scopolamin-morphin that could be attributed to scopolamin.

2. No dangerous symptoms will result if scopolamin gr. 1-10 is given, divided into three doses and injected at intervals of an hour.

3. A larger quantity than gr. 1-20 is unnecessary for therapeutic purposes. Scopolamin alone, without morphin, is of no pronounced value either as a narcotic or as an adjunct to chloroform or other anæsthesia.

4. Patients are spared the fear and annoyance of the anæsthetic if scopolamin-morphin is given.

5. The quantity of chloroform or ether is lessened from one-half to three-fourths of the amount generally employed. A state of excitement is exceedingly rare, and but a small amount of the anæsthetic is necessary for primary analgesia.

6. Anæsthesia produced by the aid of these drugs is less dangerous than without them.

7. Nausea and vomiting are rare; in fact, so far as my experience goes, they never occur during the period of consciousness.

8. There is no flow of saliva or other secretions, and the danger of aspiration and consequent post-operative pneumonia is avoided.

9. An engorgement of the superficial vessels of the body has been noticed, thus lessening shock after scopolamin-morphin.

10. The period following the operation is rendered more comfortable, and is more easily endured.

11. Headache is rarely present, and nervous excitement does not follow the operation.

12. Scopolamin is the best drug to combine with morphin to increase its narcotic and antidote its depressing effects.

13. Scopolamin gr. 1-50 and morphin gr. $\frac{1}{4}$ given one-half hour before a painful dressing will permit the performance of the same without causing pain.

14. In delirium tremens and other manifestations of alcoholism scopolamin in doses of gr. 1-100 to gr. 1-50, and morphin gr. 1-6 to 1-4 are exceedingly useful. They allay nervousness and restlessness and produce natural, but profound, sleep.

15. Their use in labor has been exceedingly gratifying in my hands. If for any reason it becomes desirable that a parturient patient should have a rest during the first stages of labor, scopolamin gr. 1-100 to gr. 1-50 and morphin 1-6 to gr. 1-4 will cause her to sleep from two to five hours, and with a diminution of the force, but not a cessation of the pains.—*The Pacific Coast Journal of Homœopathy*.

CUM GRANO SALIS. By Robt. Lowell Wood, M. D., Brooklyn, N. Y. The genius of Hahnemann in taking "unconsidered trifles" and making of them potent therapeutic agents, was never more forcibly shown than by his proving of *natrum muriaticum*. The writer does not know the circumstances which led him to the proving; but it is something of an achievement to have taken Lot's wife and placed her upon a pedestal in our homœopathic "Hall of Fame." Hare, in the last edition of his "Practical Therapeutics," thus pays his respects to homœopathy: "Homœopathy depends upon more than one reason for its existence. If infinitesimal doses are given, the patient is satisfied that he is receiving medicine, and nature often produces her most rapid cures when left alone." (That is, homœopathy is suggestion, aided by a teaspoon.) Again, "the entire basis of homœopathic therapeutics rests not upon the study of the causes of diseases, but upon the symptoms which constantly present themselves. As a result of this, many minor symptoms are relieved, and the patient's confidence is won, although nothing is done to control the pathological process itself." The distinguished author does not explain how the symptoms of a

pathologic process can be removed without that process itself being influenced, nor can the writer pretend to do so. Occasionally, some allopathic brother attempts to scale the heights of homœopathic therapeutics. Aconite and veratrum viride, by dint of a little juggling with his therapeutic conscience, he will accept; ipecac and rheum he can understand, since to his physiologic mind the one spells emesis and the other purgation; but confront him with a remedy like natrum muriaticum, common salt, deep acting, adapted to chronic conditions, needful of careful study, and he altogether rejects it as absurd, and complacently returns to his Avernus of nihilism. He will not see that the particles of salt as ingested with food are too gross to exert any marked therapeutic action upon the organism, and must be broken up, and their medicinal powers developed by potentization, as homœopathy has proven; nor will he examine the evidence of provings and clinical experience. "Neither the spirit-like power concealed in drugs, and shown by their ability of altering the health of man, nor their power of curing diseases can be comprehended by a mere effort of reason; it is only through manifestations of their effects upon the state of health that this power of drugs is experienced and distinctly observed." *Organon* II. 20.

How has natrum muriaticum been used in medicine outside of homœopathy? First, in Damascus, the paroxysms of ague were controlled by two to four doses of one-half ounce each of common salt, and on the plains of Hungary and South America tablespoonful doses of roasted salt taken on an empty stomach produced the same effect. From these large doses, which were probably eliminated almost in toto to a potency of natrum muriaticum in chronic malaria, is not so great a step as one might think.

Natrum muriaticum is a dry remedy—at one end of the alimentary tract, herpes labialis; at the other, fissura ani, and in between a good appetite, yet continually losing flesh, unquenchable thirst, and after eating, mental torpor and drowsiness. Aversion to bread is a symptom which the writer has not yet verified. Like all the muriates, natrum has a dry, crumbling stool.

The high potentist has always pointed to natrum muriaticum as evidence of the efficacy of the super-minimum dose, and the low potentist has been unable to refute him. The writer, some years ago, had a personal experience which he may be pardoned for citing, since it led him to see the efficacy of the properly indicated high potency and also awakened him to the fact that natrum muriaticum might be indicated in acute conditions. At a time when it was necessary to do a great deal of study at night, a right-sided supra-orbital neuralgia made its appearance, commencing at nine in the morning by tentative and gentle twinges, becoming progressively worse during the day, until six a. m., when the pain ceased entirely, leaving a somewhat bewildered and bruised sensation behind it. During the day the pains, shooting and stabbing about the orbit, caused involuntary grimaces and clapping of the hand to the affected part, neither of which procedures relieved. Mental effort was impossible, and the pain became daily more maddening and continuous, and the writer dreaded to rise in the morning, knowing that the headache would inevitably appear. Most of the neuralgic remedies of our materia medica were introduced to the neuralgia, generally in pairs, and after ten days of suffering, quinine muriate was prescribed, but this was disregarded, and further counsel

sought. Then *natrum muriaticum* 200 was prescribed every hour until relieved. The neuralgia put in a late appearance on the next day, and on the second day entirely "ceased from troubling." The writer did not know until afterwards what remedy he had taken, but the experience cast a new light upon the vexed question of high potencies, and there is a warm spot in his heart for *natrum muriaticum* high.—*N. A. J. Hom.*

AN APPEAL WORTH READING. Dr. Edward Fornias writes a "Vindication" for Homœopathy in the *HAHNEMANIAN MONTHLY* for May. His concluding words are as follows:

"And, now, I close this appeal with the following questions:

"1. To whom are we indebted for the position and respect we are enjoying to-day as a school of medicine? To Hahnemann or to his detractors?

"2. Where would homœopathy stand now, if the early followers of Hahnemann had not been loyal enough to encourage, protect, and maintain pure and untarnished his teachings and precepts?

"3. Would it be reasonable and desirable to ignore at this our hour of prosperity the examples of Hering, Raue, Guernsey, Dunham, Lippe, Farrington, H. C. Allen, Cowperthwaite, Copeland, Betts, Mohr, Nash, Boericke, and many other successful champions of our cause? And in exchange for what?

"4. Of what earthly use would our colleges and hospitals be to us if we could not get in them the knowledge and instruction we expect and pay for, and principally if the opinions of our enemies would take root and prevail among those instructed with the teaching and protection of homœopathy?

"5. Are we to allow disloyal men to invade our centers of instruction and take up the reins that are to lead future homœopathic physicians to temptation and failure?

"6. And how about our obligations to those who trustfully and devotedly stand by us, employ us, and pay us for services we are supposed to render according to principle and according to their wishes?"—*Progress.*

HYDROPHOBIN. Closely allied to the serum developed by Pasteur for the treatment of rabies, is the nosode, hydrophobin, introduced by Hering. Of its origin Hering says: "When in Philadelphia I happened to fall in with a dog in a state of decided rabies; while he was still living and shaken with convulsions I gathered some of his saliva, triturated it, and soon convinced myself by actual experiment that it was a remarkably efficient remedy. I have cured dogs in the first stages of rabies with it, and also ulcers remaining after the bite of evil disposed dogs. All those who were bitten by a dog reputed mad to whom I administered hydrophobin continued well." Presumably this last reference is to human beings attacked by reputed rabid dogs.

Hering cites a case showing the value of this remedy in a case of insanity marked by obsession of the idea of having been bitten by a mad dog. "A man became disordered in mind and was constantly anxious from fear that he had been bitten by a mad dog, and was about to become hydrophobic; this anxiety continually increased, and was a constant source of uneasiness to the whole family. I gave him a dose of hydrophobin, care-

fully abstaining from mentioning what it was in order not to excite his imagination, and even stating that it was a very doubtful remedy, as indeed was the truth. In a week he was almost free from his fearful state, and asked me whether that was accidental."—*N. A. J. Hom.*

A STRAWBERRY CASE. The degree of susceptibility of some individuals to the influence of certain drugs, tobacco-smoke or other narcotics is at times almost beyond belief. Recently a case came to our attention which, while open to some question, is at least a most striking coincidence. The record is as follows:

Woman, age 60; history of erysipelas (facial) occurring in July each year. Patient is otherwise a healthy individual and the family history does not reveal the erysipelatos tendency or other transmittable disease. Eventually the patient observed that her attacks were coincident with the strawberry season. Although very fond of the berry, becoming convinced that the fruit was in some way responsible for the erysipelas, she refrained from eating it, and that season passed without an attack. The next year, thinking she had been unduly alarmed, she again partook of the delicacy and suffered another very serious attack of erysipelas. This experiment was repeated a number of times with the same results until becoming fully convinced as to the cause of her trouble, the use of strawberries was entirely abandoned, with the result that she has not had the disease in six or eight years that she has abstained from the strawberry diet.

This is not written for the purpose of in any way influencing the price of this delicious berry, immediate or remote, nor do we personally abstain, but merely is a history of what we view as a very interesting case. If it could be demonstrated that the strawberry contained vast numbers of the streptococcus pyogenes and that this berry took fiendish delight in dumping them into the blood of their victims, then we would consider it a sacred duty to interdict their use, at least by our neighbor, even if personally we were willing and anxious to face the danger undismayed.—*Progress.*

BRYONIA AND BAPTISIA IN TYPHOID. By C. E. Fisher, M. D., Chicago. Someone has said: "The more the typhoid the more the bryonia." Whoever said it said well.

Bryonia has served us more often and more regularly than all other remedies combined. So much is this true that our corps has almost come to prescribe it routinely upon the reception of a fever case.

Begun at the beginning, the temperature rarely gets beyond control, and we have been very fortunate in warding off the intestinal relaxations that are such a nuisance so often.

The mental hebetude, the dulled expression, the besotted countenance, the dry brown tongue, the foul breath, the sluggishness of functions, the decubitus and desire to lie quiet, the slowness of pulse as compared with temperature, these and other symptoms to be found in the Symptom-Codex are the picture for Bryonia in typhoid.

Many of our cases have been carried through on Bryonia alone, without a single constitutional or intercurrent.

Second. Next to Bryonia has come Baptisia. But it has not been called for in anything like the number that might be expected from the praise it has received.

Ever since Hale pronounced Baptisia a remedy which would abort typhoid fever it has been used frequently and indiscriminately in the beginning as an abortifacient. Whereas, Baptisia is rarely indicated early. Its chief characteristics are putridity and duality of consciousness, or, rather, a perversion of our duality.

Baptisia is a secondary remedy, always to be thought of as the patient gets mixed up, and as his breath and discharges become penetratingly foul.

Someone else is in bed with him; it is the other man who is sick; what has become of his chest, leg or arm; in answering questions it is in the third person singular: it is "he," not "I," who slept well or who didn't.

These symptoms never occur in the first week. They doubtless arise from the effect of the typhoid toxin and the continued heat upon those centers in the brain that preside over duality of consciousness—hence it is the other part of use, the other fellow, if you will, who is sick and behaving badly.

In this perversion Baptisia is a classic. Likewise where putridity predominates.

And this, also, is always late.

A word about the potency. For years it was my view that all our indigenous remedies did better in the tincture or low. Hale so taught, and he was the New Remedies authority. My ideas have long since undergone a change along this line.

Baptisia does better the farther removed from the crude.

There may be a limit to the distance to be travelled to keep this statement good, but thus far I seem not to have reached it. The sixth, twelfth, thirtieth, and even the one-thousandth have served me better than the first, second or tincture.—*The N. E. Med. Gazette.*

THE MODERN CONCEPTION OF TUBERCULOSIS AND ITS TREATMENT. B. F. Lyle, M. D., Cincinnati. What is the practice of the majority of physicians to-day after making a diagnosis of incipient consumption? The patient is left in entire or partial ignorance of his true condition, told to live out of doors as much as possible, eat good food, exercise moderately, and drop into the physician's office when anything goes wrong. He does this for a few weeks, when Neighbor Grundy recommends a positive cure, and the reign of the doctor is over.

If our clients were as intelligent on the subject of tuberculosis as they are about the treatment of typhoid fever or pneumonia, the physician who gives such advice would soon be relegated to obscurity. Can you imagine a physician retaining control of his patient if, after making a diagnosis of either of these diseases, he were to say that as they were self-limited treatment is of but little use, and if anything went wrong he was to be called?

It is not the province of the physician any more in tuberculosis than in typhoid fever or pneumonia to try to stem adverse conditions, but by careful attention to anticipate their possibility and by proper medication and advice prevent them.

Before beginning treatment the individual should be made to recognize that the cure of the disease will require many months of patient, careful adherence to all orders, and that the progress of the disease cannot be gauged by the favorable results early obtained from improved conditions.

He must also be instructed to report to the physician no less than three times a week.

The first question asked is about the advisability of continuing work. When he is the breadwinner it is difficult to answer. Complete freedom from the necessity of all occupation is best, imperative if the disease has progressed beyond the incipient stage. If this is impracticable, the hours should be shortened as much as possible, and complete rest enjoined while away from work. If considerable muscular effort is demanded or the shop is dark, damp or dusty, lighter work under favorable conditions must be secured. It must be accepted that absolute quietness is essential, and any digression can be permitted only when the disease is not active. This will be indicated by the temperature and pulse. A temperature above 100 degrees or a pulse above 100 during rest makes it quite imperative. When the former ranges between 99 degrees and 100 degrees or the latter is above 90, care should be exercised, and if effort is accompanied by a considerable rise of temperature or acceleration of pulse, it should be curtailed or entirely abandoned. Exercise when the disease is active increases the inflammation about the areas involved and thus extends the trouble.

Investigation has also shown that the opsonic index presents a continuous negative phase in such cases, probably caused by the liberation of toxins into the general circulation. The conditions generated are very similar to those following the injection of a test dose of tuberculin.

We should always endeavor to limit excessive inflammatory exudation and infiltration of contiguous tissue in order that a conservative fibrosis be established.—*Eclectic Medical Journal*.

PHLEGMASIA ALBA DOLENS. Keim (Paris) advises as prophylactic treatment to avoid long continued constipation and also enteritis. This is especially important in pale and chlorotic women. The venous system should receive attention by giving hamamelis and strychnia daily; the latter because of its tonic action upon smooth muscle fibre of the blood vessels, of the intestines and of the uterus. The treatment is advisable especially where there is a family tendency to phlebitis, if the patient has varices or hemorrhoids. After delivery care should be taken to be certain that the uterus is empty; involution is to be favored by hot vaginal douches and ergotin; massage is to be avoided, and corrosive sublimate not used. The patients should be encouraged to rest upon the side. If the disease sets in the case is to be treated in the usual manner, with rest.—*Abstr. in Zentralbl. f. Gyn.*, 1908, 90.

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SOME OBSERVATIONS ON TWELVE HUNDRED CASES OF PULMONARY TUBERCULOSIS IN WOMEN.

BY

WALTER SANDS MILLS, A. B., M. D.

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of Public Charities, New York City.

(Presented to the Homœopathic Medical Society of the State of New York, Sep-
tember 28, 1908.)

THE Tuberculosis Infirmary of the Metropolitan Hospital has been in existence since January 31, 1902. Up to July 1, 1908, there had been 16,122 admissions; 82 per cent. of them men, 18 per cent. of them women.

Since January 1, 1906, I have been on continuous service as Visiting Physician to the Women's Wards. These wards hold comfortably about one hundred patients. Recently they have been much over-crowded, the census some days reaching as many as one hundred and fifty. The Infirmary is a charity institution and must accept all indigent applicants, so that over-crowding cannot be prevented, if patients come in faster than beds are vacated. It is expected, however, that this condition will not continue long, as new buildings, now under construction, will greatly enlarge the capacity for tuberculous patients.

For my own use, I keep a sort of card index of the patients in my wards, upon which I jot down special points of interest. This has nothing to do with the hospital records which are, of course, very complete for each case, and which are kept on

file at the institution. This paper is based on my own notes of twelve hundred cases admitted to my wards between June 1, 1906, and June 1, 1908. Each of these patients was examined by me personally at least once, and some of them many times. As a matter of routine, I examine every patient at least once every three months.

The majority of the women patients are working women; a small minority are professional prostitutes. Most of the former are, or have been, married. Some have to add to the family income by manual labor; others have been left widows and have had to provide everything for their families; still others have had only their household duties to perform. Of the unmarried ones, many have been domestic servants; others have worked in factories of different kinds. All of the women patients were women who had been used to hard manual labor, or else were women who had been dissipated. Some had been both.

For a little more than two years a small ward in the women's building has been set aside for children. When the new buildings now going up are completed, the children's department is to be much enlarged.

The ages of six hundred patients, arranged in periods of five years, was as follows: Under five years, 4; six to ten years, 5; eleven to fifteen years, 5; sixteen to twenty years, 60; twenty-one to twenty-five years, 84; twenty-six to thirty years, 136; thirty-one to thirty-five years, 83; thirty-six to forty years, 76; forty-one to forty-five years, 55; forty-six to fifty years, 33; fifty-one to fifty-five years, 20; fifty-six to sixty years, 24; sixty-one to sixty-five years, 9; sixty-six to seventy years, 4; seventy-one to seventy-five years, 1.

Analysis of these figures reveals the interesting fact that the greatest number of patients in any one period was 136, between the ages of twenty-six and thirty years—nearly 23 per cent.; the second greatest number was 84, or 14 per cent., between the ages of twenty-one and twenty-five years; the third greatest number, 83, or nearly 14 per cent., between the ages of thirty-one and and thirty-five years. Adding up all those between the ages of sixteen and forty-five years—the child-bearing period—we have 494, or a trifle more than 82 per cent.

Quite a large percentage of patients date their lung trouble from pregnancy or childbirth. How many of these cases ac-

tually began at this time, and how many had been ill before becoming pregnant, I cannot say. But this I do know—enough cases have been recorded to show that pregnancy and tuberculosis form a bad combination. In tubercular women who have entered the hospital while pregnant and been confined there, and in tubercular women who have entered the hospital shortly after confinement, the pulmonary condition has invariably run a rapidly fatal course.

One patient was possibly infected by a child she had wet-nursed. The history of the case was as follows:

Mary A., aged 35 years. Entered the Tuberculosis Infirmary April 18, 1907. The patient was married in May, 1899. She gave birth to one child, March 10, 1900; one child July 21, 1901; twins, March 26, 1904; one child May 17, 1906. All of these children were strong and healthy. Shortly after her last child was born, the patient was engaged as a wet nurse by a wealthy family in New York, to nurse a delicate infant that eventually died of tuberculosis. The patient nursed her own child at the same time that she nursed the other. .

It is to be presumed that this woman was in prime physical condition, and without evidence of tuberculosis when she was engaged as wet nurse. The family that employed her was rich, and one of the most celebrated pediatricists in New York picked out this patient to wet nurse the baby. After her charge died, the patient became sick and was sent to the Infirmary on April 18, 1907. When her rich patrons found where she was they took her out and sent her to a private sanitarium on June 5, 1907.

The patient was a large, fine-looking woman with every appearance of great physical vigor. Physical examination of her chest, however, revealed an active tubercular process going on in the upper lobe of each lung. My prognosis was very grave.

The evidence would all seem to point to possible infection of the patient by her tubercular charge. The woman had already borne five children of her own, all of whom were healthy. She was of such fine physique that she was able to nurse twins successfully in 1904, and her own child and another in 1906. She showed no signs of breaking down until after she had wet-nursed a tubercular infant. Now, the question arises: If the patient was infected by her charge, was she infected through her breasts, or was she infected by contact

in other ways? Evidence of infection was purely circumstantial, but the case seemed well worth recording.

The majority of the Infirmary patients dated the beginning of their tuberculosis from a neglected cold. Such patients could not tell exactly how long they had had symptoms. Others could date their trouble from grip, pleurisy, or pneumonia. These, of course, could give a definite time for the beginning of their symptoms.

Regarding the origin and transmissibility of tuberculosis, little is known, notwithstanding the mass of literature that has been written on the subject during the past few years. Personally, I believe too much emphasis has been laid on the communicability of tuberculosis. That occasional cases are transmitted, one to another, is undoubtedly true, but it is extremely difficult of proof. If two members of the same household are taken ill with tuberculosis, one after the other, or if two persons working side by side in a factory are taken ill with tuberculosis, one after the other, by what right can it be maintained that one was infected by the other? Why is it not just as correct to say that both were subject to the same general conditions and so, naturally, became ill of the same disease?

An overwhelming fact against the easy communicability of tuberculosis is this: It is estimated that one-seventh of the world's population dies of tuberculosis. By what possible combination of circumstances could the other six-sevenths of us escape if the danger of infection were so great as some would have us believe? Escape would be impossible! The world would have been depopulated ages ago.

Two cases to illustrate: During the early part of 1907, a young woman aged twenty-five, married, mother of one child, entered the Infirmary. Her mother was already a patient there, suffering from tuberculosis. Naturally, when this patient appeared at the distributing office of the Department with marked chest symptoms, she was also sent to the Infirmary. Careful physical examination after entrance showed the chest symptoms to be caused by lobar pneumonia. This diagnosis was confirmed by the history of the case and by the microscope. The patient was kept right in the ward with the tuberculosis patients, as she seemed too ill to be moved. The pneumonia ran a typical course, and in three weeks the patient

was discharged cured. At that time she presented not the slightest suspicion of tubercular infection.

The other case was a woman about forty years of age, who had been employed as a night helper in the Women's Wards at the Infirmary for four years. During all that time her duties consisted in doing the heavy and dirty work about the very sickest of the tuberculosis patients; in removing and cleaning bed-pans; carrying off soiled bed clothing; changing sputum cups, and so on. Moreover, she was on night duty the entire four years. At the end of that time she was taken ill with an acute pelvic condition, operated on, and died. Dr. Bond Stow, Pathologist to the Metropolitan Hospital, made a most careful and complete autopsy, which failed to reveal any evidence of tuberculosis in any part of the body.

In 493 of the 1200 cases, the relative severity of the disease on the two sides was noted. Pulmonary tuberculosis usually starts in one lung, but it is essentially a bilateral disease, and in advanced cases both sides become involved. In 175, or 35% of the cases noted, the lesion was in the left lung only, or the left lung was much worse than the right; in 132, or 27%, the lesion was in the right lung only, or the right lung was much worse than the left. I can give no explanation for the greater frequency of infection of the left lung. In 186, or 28%, of the cases, both lungs were equally bad, as nearly as could be judged by physical examination.

In 36, or 7% of the cases, the larynx was badly diseased. Laryngeal involvement is a very serious complication in pulmonary tuberculosis. There have been no uncomplicated cases of laryngeal tuberculosis at the Infirmary—all have been associated with pulmonary lesions. In my experience, a laryngeal complication adds greatly to the severity of the case. Practically all die.

Among the 1200 cases on which this paper is based, I have found the viscera transposed in three. Transposition is, of course, congenital, and has no effect on any pathological condition.

In tuberculosis of the lungs, the second sound is accentuated over the pulmonary valve in the vast majority of cases. This is quite constant and is an early sign.

Valvular lesions are said to be rare. I have found them with considerable frequency. I examined forty-five patients in one of my wards one afternoon, with the sole object of

noting the heart lesions. I found thirty-three of the forty-five hearts normal—75 per cent.; seven, or 15 per cent., presented mitral lesions; one, aortic stenosis; four were doubtful. The heart condition was not always recorded on my cards, but where it was, mitral lesions were about twice as frequent as aortic.

Pericarditis was found occasionally.

Chronic interstitial nephritis was found many times.

Syphilis occurred in about one per cent. of the cases.

Cancer was found several times.

Asthma was a complication in a few cases.

A number of cases of alcoholic neuritis were noted; also hysteria, and two cases of locomotor ataxia.

Various skin eruptions were occasionally found.

Three patients were badly deformed by curvature of the spine.

Of the 1200 cases, 372 died, a mortality of 31 per cent. Of these 372 who died, 56 died in less than ten days after entering; 60 died in eleven to twenty days; 41 died in twenty-one to thirty days—a total of 157, or 42 per cent., within the first month after coming into the Infirmary. During the second month, 82 more, or 22 per cent. died. No words can explain more eloquently than these figures the advanced condition in which most of the patients reach the institution.

Of the patients who left the Infirmary, 44 per cent. left less than thirty days after entering. Many of these could have been permanently benefited if they could only have been persuaded to stay longer. Patients cannot be held against their will, and for various reasons many of them decline to stay as long as we would like.

Of the 1200 cases, there were 76 who came back a second time; 14 who came back a third time; 2 who came back a fourth time; 2 who came back a fifth time, and one who came back a seventh time.

Those who went out and returned, almost without exception, came back in worse condition than when they left—nearly all of them died within a few days.

THE TERMINAL TEMPERATURE.

BY

S. W. SAPPINGTON, M. D., PHILADELPHIA.

(Read before the Pittsburg Pathological Society.)

Physicians connected with hospitals or institutions where bed-side charts are kept of inmates' illnesses have abundant opportunities to observe the temperature course in various patients and diseases. And if the temperature records do not always include the beginning of a case, they at least "mark time" for the disease at its height and to its close. Furthermore, the thermometric indications have what we consider a great advantage in the elimination of that clinical bugbear, the personal equation. Scarcely two persons will agree in the eliciting of symptoms and physical signs, but the thermometer, other things being equal, reads the same for all. And though we may differ in our deductions drawn from high or low temperatures, we feel sure that our premise, the temperature recorded, is accurate.

The presence or absence of fever temperature in different pathologic conditions and the febrile course of various diseases is well established and pictured in text-book charts. These charts complete the case by indicating, in febrile affections, the slow or rapid decline of the temperature to normal, which assumes the recovery of the patient. But the melancholy fact that patients sometimes die when ill occasionally obtrudes itself on the regularity of these diagrams and abruptly or slowly ends the case. The temperature course in such an event is more or less characteristic, yet it seems to have attracted scarcely any attention and, as far as our knowledge goes, it finds little or no mention in journals or books. This is probably due to the fact that sundry other signs are apt to herald the approach of death, and, considering the case desperate or hopeless, we either view it with indifference as far as noting terminal phenomena is concerned or else employ our time in burying it in a hailstorm of highly lauded and ineffectual therapeutic measures.

The temperature in the last twenty-four hours and sometimes in the last forty-eight or even seventy-two hours of life pursues, in a certain percentage of cases, a noteworthy course

and one we think that has not been sufficiently appreciated. This final temperature of fatal cases we have termed the terminal temperature and the matter has sufficiently interested us to analyze 100 cases from the Hahnemann Hospital and 45 cases from the Children's Homœopathic Hospital. Our results, and conclusions, indicated below, convince us that the subject has clinical as well as scientific interest.

The material for analysis was taken rather indiscriminately from 145 available fatal cases.* One hundred of the patients were adults and forty-five children. The temperature changes qualifying as "terminal temperatures" nearly all took place in the last twenty-four hours, and in only a few in the last forty-eight or more hours. Unfortunately, the temperatures were not all uniformly taken up to within an hour or so of death, the nurse evidently thinking the patient so low that it was not worth while. The temperatures are practically all axillary. What is denominated as a rise in temperature means an elevation of one degree or more, but, as will be seen below in the summaries, the average was much above one degree in those qualifying. It must also be remembered that a number of these cases were already pursuing a febrile course, and that a rise means an elevation above what is already a febrile temperature. A fall here means a drop of one degree or more. We have also noted at the same time comparative pulse rates, and while they are probably correct in the majority of cases, yet we cannot guarantee their accuracy on account of the precariousness of estimating the heart beats from the radial in a dying individual.

In examining the chart of a fatal illness, all of us have probably had our attention occasionally attracted by the tremendous and rapid final rise of temperature, as, for example, where a patient with normal temperature will in a matter of eight or ten hours exhibit an elevation to 105°, 107° or 108°. But we are apt to overlook the slight rise which is so frequently present. Out of our 145 cases, 77 or 53.1% showed a terminal rise of temperature; 33 or 22.8% showed a fall; and 35 or 24.1% were stationary. Of the 100 adult cases, 51% had a rise of temperature, 21% a fall, and 28% remained stationary. Of the 45 children, 26 or 57.8% exhibited elevations of temperature, 12 or 26.7% a fall and 7 or 15.5% neither rose nor

*These cases include medical, surgical and gynecologic patients, such a mixture favoring better statistics.

fell. Thus we see that about half of the patients who die develop a rise of temperature at the end. The pulse rate increased twenty beats or more in 95 or 65.6% of cases, decreased a corresponding degree in 6 or 4.1%; was unaffected in 34 or 23.5% and was recorded as uncountable in 10 or 6.8% of cases.

The greatest degree of rise was in Case No. 88 of the adults whose temperature reached 108.2° . This was a case of fractured skull dying about ten hours after the injury. In No. 34 of the children's series, the temperature reached 108° , rising from 104° ; this was a case of rickets and pneumonia. Case No. 78 of the adults was one of cerebral apoplexy and rose 8.8 degrees in 20 hours. Case No. 3 of the children rose 7 degrees in 20 hours; this was a case of tuberculous meningitis. The average terminal temperature for the 145 cases was 104.1° ; for the 100 adults 103.8 ; and for the 45 children 104.8° . It has been already remarked that some of these were febrile cases and it may be thought that the final temperature was little above what the patient had been running. But it is to be noted that in the adults, 51 exhibited a rise of temperature and of these 42 were running temperatures under 101° , most of them, in fact between 98 and 99° . So the febrile cases count little in raising the average. Of the children, 19 or about 42% were running temperature under 101° previous to the final rise. The number of degrees of rise averaged 3.6° for the 145 cases, 3.8° for the adults and 3.3° for the children. The average terminal rise of temperature is usually, then, not a matter of a degree or two, but about 3.5 degrees.

The lowest temperature recorded was 92.2° in a case of extensive burns in an adult. A child with marasmus had a final temperature of 94° . The greatest drop in degrees in adults was 4.6° in the case of burns; in children 4.4° in the case of marasmus. The average low temperature in the 145 cases was 96.9° ; and the average drop in degrees, 2.5° . The adult average was 97.1° , an average drop of 2.6 degrees; in children 96.7° an average drop 2.5 degrees.

The pulse rose, as has been stated, in 65.6% of cases. It averaged 152 beats per minute in the total number of cases; 143 for the adults and 169 for the children. The highest pulse in adults was 196; in children 245, though there is a doubtful case at 300. Case No. 66 in the adult series rose 114 beats in 8

hours; case No. 28 in the children's cases rose 155 beats. The records of low pulse beats were too inaccurate for averaging.

As regards age as a factor, we have already noted a terminal rise in 57.8% of the children as against 51% in adults. In the adults series, we have the ages recorded in 95 cases. There were 47 under 40 years of age, and 48 at 40 and over. Of those under 40, 27 or 57.4% showed a terminal rise. Of those 40 and above, 24 or 50% exhibited a final rise.

In the adult series there were 66 males and 34 females. Thirty-six or 54.5% of the males showed a rise as against fifteen of the females, 44.1% had an elevation of temperature. Age and sex in the children series were not considered.

We look over the series in the line of a rather arbitrary division into febrile and afebrile cases. This gives some interesting figures. There were altogether 60 febrile cases; 56.6% of these exhibited a final rise over the fever temperature they had been running. In the adult series, there were 33 febrile patients with a rise in 48.4%; in the children's list, there were 27 elevated temperatures which rose still higher at the end in 66% of cases. There were altogether 85 afebrile cases, of which 51.7% showed a terminal temperature. There were 67 afebrile adults, and of these the temperature rose in 52.2%. There were eighteen children in a similar class; 50% of these exhibited a terminal elevation. It will, therefore, be seen that no matter whether the case be febrile or afebrile in type, somewhat over half the total number of patients develop a terminal rise of temperature.

Considered in the light of medical and surgical cases, percentages were again calculated. The surgical cases include a few gynecologic patients. Out of 87 medical subjects, 39 or 44.8% had a rise of temperature in the last day. Out of 58 surgical cases, 38 or 65.5% rose. In the adult series, 21 out of 51 medical, 41.2%; and 30 out of 49 surgical 61.2% had a terminal elevation. Of the children, 50% of the medical series, 18 out of 36, exhibited the terminal rise, while 8 out of 9 surgical, 88.9% showed the same phenomenon. It will be noted that there is a rather wide margin of difference between the medical and surgical cases.

This point is perhaps better emphasized when the diseases are taken separately. For example, take typhoid fever as a medical type and fractured skull as a surgical type. Among

the adults, there were 13 cases of typhoid, 6 of which, 46.1%, exhibited the final rise; of 4 typhoids in children, there was no rise; the average rise for all, then, was 35.1%. There were 12 cases of fractured skull in adults, and of these 83.3%—10 out of 12—developed marked terminal elevation. We have no children with fractured skull on the list, but we recall distinctly several cases at the Children's Homœopathic Hospital in which the temperature ran very high at the end. There is a difference here of 48.2% between medical and surgical cases. The difference, however, does not lie in this distinction but rather more on the acuteness or chronicity of the case and the consequent ability to react. Illustrative of this, we may take two series in children. Out of 5 empyemas diagnosed early and operated, there occurred a rise in 4, 80%. In contrast to this stand 7 cases of malnutrition and marasmus, with a rise in only 2, 28.6%.

This leads us still further into the question of reaction. We would naturally expect more of a reaction in acute and robust cases than in chronic, long continued and more or less weakened patients. And this is confirmed in our figures. In 6 cases of tuberculous meningitis rapidly fatal in children, there was a very marked terminal rise in all, 100%. In two cases of chronic tuberculosis in adults there was a terminal drop. In 11 cases of carcinoma of the gastro-intestinal tract in adults, there was a rise in 4, 36.5%. In 8 cases of very chronic heart trouble the temperature rose finally in 3, 37.5%. But in 3 cases of quickly fatal apoplexy, the temperature rose rapidly and markedly in all, 100%. And even in cases, 6 cases of appendicitis, where the accompanying peritonitis is supposed to have an opposite effect, the percentage rise was 66.7%. We do not overlook the fact, however, that the location of the lesion, as in meningeal and cerebral cases, may have a direct effect in the heat centers.

Some miscellaneous cases are worthy of note. Among the children's, there were four marked examples of nutritional disease in the form of 3 cases of rickets and one of scorbutus. The cases of rickets contracted complicating disorders, at the end, but in all, 100%, the final rise was present, which was rather unexpected. In case of diabetes in an adult, there was no rise. In a case of pernicious anemia, there was quite a fall. In 6 cases of chronic interstitial nephritis, 66.7% or 4 rose. In 15 miscellaneous accident cases, mostly suicides,

multiple fractures and internal injuries, the rise occurred in 7 or 46.6%. In two very severe burns, there was a marked fall. The involvement of the peritoneum is supposed to have a depressing effect on the temperature, but of the various diseases which it was involved as in typhoid perforation, appendicitis, injuries and gynecologic cases, the rise averaged about 50%.

A pulse rise is more constant than that of the temperature. In six cases of appendicitis and 13 of typhoid the pulse exhibited a terminal rise in 100 of cases. In 11 cases of carcinoma, the pulse rose in 72.7% as against the percentage temperature rise of 36.3%. In the fractured skulls, the percentage of pulse and temperature elevation were equal, 83.3%. In the 15 miscellaneous accident cases quoted before, the percentage of pulse rise was 53.3%, as against 46.6% of temperature. Altogether, we may say that the pulse nearly always rose where the temperature did; there are few exceptions to this rule. Furthermore, the pulse not infrequently rose when the temperature did not. The only difficulty in using the pulse as an indicator lies in the liability to error in counting the radial beats. The pulse is not uncommonly recorded as much slower than it really is, due to the nurse missing sundry beats. But if the physician himself takes the count from the apex beat, the pulse rate as a useful factor stands high.

We take so much for granted in medicine that we scarcely ever pause to consider the wonderful working of the human mechanism. It seldom occurs to us that it is much more surprising that we are able to maintain the healthy or normal state than that we contract disease. The delicate balance necessary for our various physiologic processes is complexity itself. Nowhere is this more characteristically shown than in the regulation and constancy of our body temperature. Agents, such as exercise and food, which produce sufficient heat for the production of the highest fever, are at once balanced in the normal individual by a sufficient loss through proper channels.

Fever means to most clinicians simply a rise of temperature, but it is much more than this, and we may have a rise of temperature which is not fever. The various disturbances of metabolism which are part of the febrile process are yet in large part unknown quantities and though we know of their existence and have evidence of the various changes in

end products found in excretions and secretion, we still have most to learn of the chemical processes and pathogenesis. We say the maintenance of temperature is dependent upon the balance, between the heat production and heat dissipation; this is obvious. It follows that a rise in temperature is due to disproportion between heat production and heat loss, a disturbance of one or the other or both. We have good reason for believing the control of this in certain nervous centers, as yet unlocated.

We speak of heat production as the chemical factor in regulation and of heat dissipation as the physical factor in regulation. "In experimental fever at best the pyrexia appears chiefly to be due to increased production rather than diminished loss of heat." On the other hand, clinical evidence seems to point to fever being due to disturbance of heat loss rather than heat production. We come, therefore, to a question of whether we are dealing with alterations in the absolute quantity of heat produced or simply a disturbance of the regulation between production and loss. These problems as well as the pathogenesis and many metabolic processes involved are still to be worked out and offer a rich field for the investigator. We have known of fever for years and yet to-day we cannot attempt to explain it.

Of the various causes of fever in man, bacteria directly or indirectly are probably the most important factors. This point perhaps, may be applied to the subject in hand. Flexner has shown in his well known study of terminal infections that many chronic diseases, such as heart, liver and kidney affections succumb finally to terminal invasion of bacteria which, unable to attack the body when it is fairly resistant, are more successful in the greatly weakened subject of chronic disease, and invading the body in the last days really bring about the end. This information which we owe to the pathologist and bacteriologist may have its clinical corroboration in the terminal rise of temperature found in so many individuals. For fever is the indication of reaction to injury just as inflammation is, and is believed by some observers to be more or less beneficial. The temperature attained in certain bacterial invasions, for example, is reactionary to the germs in that they do not thrive as well, nor are they as virulent, at the elevated temperature as at the normal body heat. So in our dying patient, it may be that in a certain proportion of cases the

terminal invasion of bacteria is followed by an attempt at reaction indicated in a terminal temperature. This theory is strengthened by the fact of a greater reaction in those who are stronger, as, for instance, those who are only ill for a short time, or in certain acute surgical conditions. Whether the terminal temperature is due to excessive production or diminished loss or both is, of course, undecided, inasmuch as we are still open on this subject in regard to fever in general.

Mandel has called attention to the fact that the temperature rise in aseptic and surgical fevers is accompanied by a great increase in the purin bases in the urine of milk-fed patients. And Lusk remarks that "it would indeed be a most striking fact if it should be found that the cause of the febrile temperature lay in the effect of purin bases on the heat-regulating apparatus of the mid-brain acting through the vaso motor system." If this were so, it would seem that the bacterial poisons would give rise through the breaking down of tissues to a large amount of purin bodies or bases, and these act in the way indicated. The terminal invasion of bacteria could thus give this terminal temperature reaction. Many of these conjectures are mere hypotheses, to say the least, but we are today in the hopeful era of biologic chemistry, and these emphasize, as Lusk says, the extraordinary field which lies open to the investigator in clinical medicine.

Let us recapitulate. We have seen that a certain number of individuals develop a more or less marked rise of temperature in the last day or so of life and this we have named the terminal temperature, and investigated the subject through 145 miscellaneous fatal cases in adults and children. *We find that 53.1% of our patients developed this terminal rise, which averaged 104.1° an elevation of 3.6 degrees over their previous temperature. The pulse in the same cases also increased correspondingly, averaging 152 beats in its final record.* These figures are not materially altered by differences in the age or sex of the patient, or whether the disease is febrile or afebrile. There is apparently some difference in medical and surgical cases, the medical subjects averaging 44.8% of rise and the surgical patients 65.5%, but this is rather due to the fact that the surgical cases are usually acute or of short duration, while medical diseases may be chronic and prolonged.

An investigation of individual cases confirms the opin-

ion that the more acute and robust cases (e. g. surgical diseases) are more apt to give a reaction and a marked one than long continued chronic diseases (medical) which gradually weaken the patient and therewith his reaction. For in some respects the degree of fever is a measure of the degree of reaction. Investigation of the pulse in individual cases confirms the view of its tendency to rise in proportion to the temperature and not infrequently its ratio is in excess of that of the temperature. Furthermore we have noted a rapid or increasing pulse rate anticipating the temperature rise, but the value of pulse records is somewhat impaired by the dangers of inaccuracies in the dying. To investigate the pathogenesis and process of the terminal temperature is the same problem as the investigation of fever in general and this as yet an unsolved question. We know that bacteria are important factors in the majority of fevers and their role in terminal infections suggests that the terminal rise of temperature is in a certain proportion of cases, the clinical evidence of such infection.

Can we draw any deductions of practical value from a study like this? Not many, perhaps, but a few. We pay a great deal of attention to diagnosis and therapeutics, and the not unimportant subject of prognosis is often overlooked. The patient's friends and relatives want to know the outlook and possible duration of the illness. If we have such knowledge those distant can be sent for. We can with some safety assume when we see the terminal temperature and pulse beginning and developing that the end is a matter of hours. This is especially valuable in surgical and accident cases. When the patient has been long ill and the constitution greatly weakened, we naturally would not expect the reaction that we find in cases the opposite, but a little experience in this line gives the ability to make fairly accurate predictions. We believe the pulse rise is even earlier and more constant and valuable than the temperature change if we are sure of our premises in the count. It is not difficult for the experienced physician to tell when a patient is dying, but is often somewhat difficult to say how long he will last, and here the terminal temperature rise will aid us. This study, then, teaches us that about half of our patients develop a rise of temperature at the end, which rise indicates that death is a matter of hours. So if these facts can occupy a small niche in the prognostic corner of your medical memory they will have served their clinical purpose.

MEDICO-LEGAL DUTIES OF THE ALIENIST.

BY

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(Read before the Society of Neurology and Psychiatrics of the American Institute of Homœopathy, June, 1908.)

THE application in courts of justice of medical knowledge in the settlement of cases in law dates back to about the sixteenth century, before which time the rules relating to its practical use were embodied in those famous compounds of state and judiciary law, the Pandects. Even before that time its value has been recognized and doubtful medico-legal points were often settled by referring them to the "authority of the learned Hippocrates." It was in 1532, at the diet at Ratisbon, that Charles V., Emperor of Germany, decreed that medical practitioners shall be called to investigate all cases of death "by wounds, poisons, hanging, drowning and the like; as well as cases of concealed pregnancy, procured abortion, child-murder," etc. For the next hundred years, this duty was performed exclusively by surgeons, but in 1692 physicians were included and henceforth discharged similar duties. The subject received desultory attention until, in 1810, Dr. Rush, in an address delivered before the University of Pennsylvania, dwelt on the value "of medical testimony as an aid in the vindication of oppressed innocence and the punishment of crime." Since then we have had many able writers who have discussed the subject and the importance of such testimony has been fully recognized.

While there has been and is a great difference in the definition of the term "Medical Expert," all authorities agree that some special preparation is requisite before any physician can qualify as such. Just what this preparation must be is a mooted question and one which we cannot discuss in this paper. Suffice it to say that an expert is expected to testify to special facts and their special significance, and he must have more than ordinary training to qualify him for this. Let me emphasize the words *special significance*. This requires a most minute, varied and extended knowledge of the subject matter in hand and not only this but of many other matters which may be closely allied. This must be admitted.

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in alluding to the importance of the medico-legal functions, says: "It is such duties, ably performed, that raise our profession to an exalted rank in the eyes of the world; that cause the vulgar, ever ready to exclaim against the inutility of medicine, to marvel at the mysterious power by which an atom of arsenic, mingled amid a mass of confused ingesta, can still be detected. It does more: it impresses on the minds of assassins, who resort to poison, a salutary dread of the great impossibility of escaping discovery."

This is as it should be, but, unfortunately, it is not *as it is*. Too true is it that only a small particle of unstable matter may make the whole mass unstable, at least in appearance. It is not just to say that the whole medical profession is unreliable as experts because a few have acted so as to appear to be worthy of that designation no more than it is just to say that the whole legal profession abuse their privileges in examining medical experts because a few act as though their whole duty in a case is to browbeat and belittle experts and their testimony used on the opposite side. The rule is to give to the medical expert his proper deference just as the rule is that a lawyer recognizes that there may be another side to a question than the one that suits his purposes. It is, however, a fact that the general attitude of the public toward medical experts is not one of which we ought to be proud, and this is, perhaps, directly, the result of treatment accorded them on the stand by cross-examining attorneys. Sometimes that treatment has been justified by the general unworthiness of the witness, and sometimes again the attorney has been unfair in his examination. The most serious factor in the matter is the practical truth of the assertion many times heard and sometimes heard from the bench, that it is possible to get medical experts to cover any phase of a case in court. In other words, no matter what kind of medical testimony is necessary, a medical expert can be found who is able to supply it.

We all recognize that this is not right, that there can be only one right testimony in a given case, and that usually there is not enough room for argument to permit even an ordinary difference of opinion. We must necessarily then come to the conclusion that the medical expert is prone to allow his desire to serve the side that employs him to influence his views on the questions presented to him. This, of course, should not be so. The medical expert must be of a mind absolutely unprejudiced.

Is it possible to preserve such an attitude? Is it possible for an expert to remain unprejudiced? We think it is. It must be remembered that we are not speaking of the average medical *witness*. We are speaking of an *expert* in medical testimony. That implies, as we have before said, an especial training along the lines of medical expert testimony (and rather tardily we would say that we are employing the term in a general sense, to include the surgeon also.)

What are the requirements of a qualified medical expert? He should first of all be well grounded in the fundamentals of medical science. He should be above the average rather than below it in his standing in these branches. Then he should have added to his knowledge an especial knowledge of all the latest researches and most improved methods of investigation. He must have powers of observation and the ability to reason correctly on the facts observed. He must have the logical mind. Added to these must be an amount of practical experience sufficient to enable him to bring his knowledge to bear on the points under investigation. Then he must be honest, not alone to the court, jury and attorneys, but *to himself*. I should like to take up a discussion of the methods of obtaining such training and the course of instruction desirable, but neither time nor space will permit. At the present day, such courses are obtainable to the best advantage in schools of legal medicine and are the following out with practical laboratory work of the lectures given.

Perhaps one other requirement might be mentioned. It might be called a well-balanced temperament. He should at all times preserve a dignity befitting his position. The expert who jokes or tries to be funny on the witness stand loses just so much in effectiveness. He should be quiet, serious and under every circumstance retain his composure. This, then, is the ideal expert, and he should command the respect of those with whom he comes in contact. It goes without saying that the medical expert who is the possessor of the above-named characteristics is very apt to be one who will command the respect of the court, and will not be subject to all the petty persecutions with which so many have been assailed, and what is more, he will not lend himself to any scheming to place in the fore-front the side by which he is called unless it has a right to be there. To our mind, it is patent that the disfavor in which the medical expert is now living is entirely due to

the actions of the very few who have been influenced in their opinions by the wish to push forward the cause of the side which employs them, regardless of right and justice. "The amount paid medical experts in such cases as the Thaw case saps at the very foundation of justice and strikes at the very heart of medical expert evidence." "It is a blistering shame that a case can have from four to six or even more medical experts on each side. The whole result of such a situation is that he is not considered an important factor by either judge or jury. And these say so publicly. It is the system that is wrong, not the doctors."

One part of this system which is especially to be deplored and which tends to intensify partisanship is that of the same physician acting as witness and also as tutor or adviser of the party or attorney calling him. The physician should not be both witness and adviser. His zeal as tutor is too likely to color his testimony as witness. It is an unpleasant spectacle to see the physician coaching the examining attorney and then passing to the witness stand. Testimony so given is of little weight and very unsatisfactory. An attorney in my home city tells me that this practice among attorneys is considered almost unprofessional, and a smile of derision can be seen to pass around attorneys in a court room when an attorney conducting a case puts on the witness stand his associate in the case. The situations are parallel.

The Hon. Clark Bell, President of the New York Medico-Legal Society, in an address delivered before the Maine Academy of Science and Medicine last year, discussed in a very derogatory way the following points:

- 1st—Partisanship of paid medical experts.
- 2nd—The payment of large sums to medical experts for their services.
- 3rd—The growing practice of having physicians attend constantly while evidence is being taken and then asking them what is their professional opinion upon all the evidence heard by them.
- 4th—The hypothetical question, which but rarely presents the case as it is, whose data are often conflicting and even impossible, presenting cases never met with in medical practice. So often is this the fact that one eminent jurist, the Chief Justice of the Supreme Court in one of our States, says that he has never required an answer to a hypothetical ques-

tion, but has left it to the medical witness to answer or not as he pleased.

Enough has, we think, been said to show that there should be some change in methods in the matter of evidence by expert witnesses and we do not wish it to be understood that what we have said must be taken as referring alone to the medical expert, though we shall not attempt to offer any suggestions concerning a remedy for the abuses which belong to other than our own profession. That the whole field of expert testimony is under the ban, is illustrated by the results of the Molineax trial in which experts in handwriting occupied the most prominent position all through the trial. They gave exactly contradictory evidence, and the jury, in reporting their verdict, made a definite statement that they did not for a moment take the expert evidence into consideration.

Granting, then, that there is this unseemly and unsatisfactory state of affairs, what shall be done to remedy it? We believe that the ideal situation would be produced if the medical expert were not called to the witness stand. His real duty should be in assisting the attorney to prepare his case. As we have said, no attorney can, with a few weeks cramming, be prepared to go on with a case which involves and requires a minute, nay even a superficial knowledge of medical science. It should, therefore, be the duty of the medical expert to make such a searching investigation of the facts connected with the case as would enable him to instruct the attorney as to its essential features, and show him the best way in which to handle the facts so as to get the best results for his client. In so doing, he would of necessity disqualify himself from testifying in the case. This, we say, is to our minds ideal, but we recognize that in the present state of law it is impossible. But we believe our best work has been done when we have been made the associate of the counsel and have never gone near the court. Oftentimes this may involve advice to the counsel to stay away from the court, also, for it has not been always that we have found ourselves in a position to advise the continuance of a suit or the prosecution of a case by the county attorney. What we have done has been to get at the exact status of the case and let our advice be governed by what we find rather than by what the counsel wants to appear. Ever and always it has been our aim to keep cases out of court, if possible.

Were this not possible, we believe that the interest of justice could best be conserved by the calling by the court of a commission of experts to whom questions at issue could be submitted. I have thought that there should be in every State a commission of experts, composed of nine members, four of whom should be surgeons and four physicians, the ninth acting as president of the board. These should be appointed by the governor, the method of appointments being as follows: The State should be divided into four districts, conveniently bounded. Medical societies within the boundary of a district should submit to the Governor names of physicians and surgeons from which he should select two to represent that district on the commission. The president should be appointed from some point near the centre of the State. The experts in any district should be called to cases in courts in that district, the surgeon if surgical points are involved, the physician if the case is a medical one. The president should attend all or only the most important ones as seemed most feasible. This expert should make his examination of the case and should report his finding to the court. This should be submitted in duplicate to the attorneys and should be made a part of the charge of the court to the jury. While I would not have the expert subjected to an examination on the witness stand, and while I would not have other experts called to testify as to the incorrectness of the conclusions drawn by the State expert, the attorneys should have the privilege of commenting upon the same in their address to the jury.

The president of the commission might either be required to be present at the examination and add his report to that of the commissioner, or he might be made simply the executive officer and officer of record. The commissioner making the examination should have the privilege of calling to his assistance, if he deems necessary, the commissioner from the district adjoining his own, and in case of a disagreement between them all, four commissioners, medical or surgical, as the case might be, the president of the commission should be called into the case. The costs of the examination should be fixed either by law or by the presiding judge and should be paid in all cases by the county in which the case is on trial. A full and complete record of the case should be filed with the proper state officer, the filing of the same being made the duty of the clerk of courts of the county as above noted.

With such a method as this, expert evidence would have a standing which it does not have to-day. The method of appointment removes the position from politics and places it in the hands of the medical profession, where it should be. The emoluments attendant upon the position should be enough to stimulate study and proper preparation for its duties. The time allotted for the examination should be such as to give an opportunity for a proper consideration of the case in all of its details. It is too often the case now that an expert is asked to give an opinion on a case after only a very superficial examination. I have been asked to be ready to appear on the witness stand the morning after my subpoena has been received, having been given only one evening to prepare. We should not allow ourselves to be drawn into a case in this way. I confess that I have testified under these circumstances, but it has always been with the full understanding of the attorney calling me of the risks attendant on it. In such cases I have no hesitancy in stating to the court, should it become, in my opinion, expedient, the exact circumstances surrounding my appearance in the case, and have not hesitated either in just as frankly acknowledging ignorance upon points which I might have known, if I had had time to consider them at length and more carefully. Every attorney knows that an admission of ignorance on the part of an expert is an extremely dangerous thing for the opposing attorney is generally very quick to try to prove that the witness who is ignorant on one point is ignorant on all. So the element of time is a very important one, and, if possible, provision concerning it should be incorporated in a law governing expert medical witnesses.

I have not entered into a discussion as to the time during which these commissioners should hold office, and have also omitted any suggestion as to the exact amount of their recompense, because these matters of detail, important it is true, but not so much so as the composition of the commission and the manner of the appointment of its members. There would probably be a difference in regard to both points in different parts of the country. One thing I would suggest, and that is that the time of holding office might be dependent on good behavior and that the remaining power should be vested in the Governor, subject to written charges to which an opportunity has been given to make answer.

Last year there was introduced in the Legislature of the

State of Maine the following bill, entitled "An Act Relative to Expert Evidence:"

BE IT ENACTED by the Senate and House of Representatives in Legislature assembled, as follows:

SECTION 1.—In any case, civil or criminal in the supreme judicial court, or any superior court, where it appears that questions may arise therein upon which expert or opinion evidence would be admissible, the court, or any justice thereof in vacation, may appoint as examiner one or more disinterested persons qualified as experts upon the questions. The examiner, at the request of either party, or of the court or justice appointing him, shall make such examination and study of the subject matter of the questions as he deems necessary for a full understanding thereof, and such further reasonable pertinent examination as either party shall request. Reasonable notice shall be given each party of physical examinations of persons, things and places, and each party may be represented at such examinations.

SECTION 2.—At the trial of the case either party may call the examiner as a witness, and if so called he shall be subject to examination and cross-examination as other witnesses. For his time and expenses incurred in the examination and in attending court as a witness he shall be allowed by the court a reasonable sum, to be paid from the county treasury as a part of the court expenses. The court may limit the witnesses to be examined as experts to such number on each side as it shall adjudge sufficient for an understanding of the contention of the parties on the question.

SECTION 3.—When upon the trial of any case in either of said courts, questions arise upon which expert or opinion evidence is offered, the court may continue the case and appoint an examiner for such questions as provided in Section 1.

SECTION 4.—In all cases in said courts where a view by the jury may be allowed, the court, instead thereof, may appoint one or more disinterested persons to make the desired inspection in the manner and under the same rules and restrictions as in the case of a view by the jury. The viewer thus appointed may be called as a witness by either party or by the court, and shall be subject to examination and cross-examination like other witnesses. He shall be allowed by the court a reasonable sum for time and expenses incurred, to be paid by the county as a part of the court expenses, at the discretion of the court.

If this law is to be taken as a guide for action by any court, it is to our mind not a feasible one from the fact that it places the appointing power in the hands of the presiding judge. While it may possibly be granted that the judges of the Supreme and Superior State courts are, like Caesar's wife, above suspicion, we may be forgiven for saying that this is not the fact with regard to some other courts. And we must not be understood as saying this in a derogatory way. We must recognize the fact so patent in this country, namely, that we

live in what may be called a political age. Our judges are elected for only a short term and they must be allowed the privilege of wanting a re-election. This involves work by many men in many places. It is not to be supposed that this work will be performed for nothing. And what so natural as to believe that one who is a worker will be rewarded by such favors as the judge can command? In other words, the hanger-on about the court house and the man who can pile up votes is the one who will most likely get, under a law such as the Maine law, the appointments as medical expert. That is true, is it not? So that the ability and fitness of the physician or surgeon becomes secondary to his value as a political worker and his willingness to hang around, Micawber-like, waiting for something to turn up. There can be no dispute as to the correctness of this statement. It is shown to be true almost every day in our courts. Then when these so-called experts go on the witness stand they very frequently make a sorry showing and bring discredit on those who really are prepared for creditable work. The spectacle recently made in a notorious case by a so-called expert has done irreparable injury to the whole profession and made medical experts a laughing stock for all the country.

Hence we believe that, in order to get the best results from the medical expert, his appointment must be taken out of interested hands and put in the hands of some one who is absolutely disinterested and performs the duty only in compliance with a general law, having no relation to one particular case in court. With the proposed Maine law, this does not hold, while with the law as we have suggested it, the appointment is made by the Governor who cannot possibly have any other interest than the fulfilling of the law as it is laid down by the enacting power, the Legislature.

An article which came to the notice of the writer since the above was completed reviews the subject in much the same way. The author of the paper is E. W. Taylor, of Harvard Medical School, and the paper is published Volume III of the work of the Neurological Laboratory, pages 81-97.

Dr. Taylor speaks of the unsatisfactory system of medical expert testimony now in vogue and deplors the fact that the medical man is placed at such a very great disadvantage. He discusses the subject from four standpoints,—“First, that of the judge; second, that of the jury; third, that of the attorneys

for the prosecution and defense; and, fourth, that of the medical expert witnesses appearing for the plaintiff and the defendant."

The judge is absolutely unbiased and represents the intelligence of the situation, not only in points of law but also in estimation of character.

The jury stand as the final arbiters of the veracity, knowledge and credibility of the medical expert witness as they do of the ordinary witness. A difficult situation is at once created by the fact that the jury are untrained medically and both court and attorneys are insistent that all the medical evidence shall be in language suited to the comprehension of this jury.

On the face of it this seems to be reasonable, but, as Dr. Taylor says: "Conceive the futility of explaining the phenomena of hysteria or of the neuroses or psychoses to untrained and often ignorant men without using the terms which have grown up about and form an essential part of the subject. What happens? The expert doesn't explain. He leaves often a wholly wrong expression. He finds himself incapable of expressing his real opinion, what with the badgering of the lawyers and the restrictions put upon him by the court. Occasions will occur to many of you in which you have left a false impression because of this limitation of your means of expression.

I remember on one occasion being called to account for the use of so commonplace a word as 'neurosis,' which the attorney insisted on defining, apparently to suit his own ends, in a wholly inaccurate way, to which I was unable to agree. Under ordinary conditions much of the medical expert testimony is valueless, and the verdict is determined by the saving grace of common sense."

The attorney's object, whether he be on the one side or on the other, is to win his case. To attain this end, he goes to the limit permitted by law and the court. The medical expert becomes a secondary consideration. His wishes in regard to the introduction of testimony are not often considered. No matter which side calls him, he is allowed to testify only so much as will help that side, and while cross examination is supposed to provide a means for getting out *all* the facts, Dr. Taylor's belief is that this is a fallacy and that the medical expert is simply "used" and "leaves the stand, in the great majority of cases, without having given his complete and

unbiased opinion upon the question at issue . . . He certainly does not stand in the independent position in relation to the case and the issue at stake which he maintains in other professional capacities."

He comes to the conclusion that "in very many instances, the mature judgment of the conscientious medical witness is not given to the jury under our present system and the pitiable part of the situation is that the attorney is doing his best to prevent the clear presentation of such mature judgment."

Under the fourth classification, the author considers the reprehensible practice of testifying for contingent fees, condemning it unsparingly and for a number of reasons. He condemns also any appearance of partisanship on the part of the medical expert, referring in no uncertain terms to the practice of some in coaching attorneys as to questions to be asked physicians called by the other side. The medical expert must avoid as he would the "Evil One," actions which will class him as a "plaintiff" or a "defendant" man. He sums up his conclusions on this point tersely as follows:—"Radical reform is at present unlikely. What can in the meantime be done quietly and unobtrusively by the medical profession? Each individual who testifies as an expert in court may at least further the cause of reform by the following means: Refuse to be forced into even the appearance of partisanship! To this end refuse to testify on the contingent basis; decline to prompt lawyers in the court room; maintain an inflexible determination to state the whole truth as you see it, remembering that the emphasis on a single word or tone of voice or manner may easily and very definitely indicate bias. Do not allow the natural disadvantage of your position as an answerer of questions to influence your temper or your judgment, and, above all else, do not permit yourself to fall into the common error of testifying regarding matters of which you are ignorant."

Dr. Taylor closes his very excellent article with the following paragraph: "Necessary as it is to do our utmost to elevate the character of expert testimony under present conditions, efforts should not be spared to bring about a fairer relation between physicians and courts in the future. Individual instances are multiplying in which, to the satisfaction of all concerned, commissions of experts have been appointed whose duty it is to report immediately to the court. Many cases of the highest moment have been adjudicated on this

basis during the past few years, and there is no question that many others will follow. By such an arrangement the physician appears at his best. He is selected after due deliberation by responsible and unprejudiced persons. He is allowed ample time for examinations, for mature deliberations on the result of his findings and for preparation of his report. He is freed from the petty annoyances of an appearance in court, and from the possible disastrous expression of an opinion which he would not have made under other circumstances. The ideal towards which the medical profession must strive in this matter of expert testimony is that of an appointment by a central authority, of physicians to sit in judgment upon the medical aspects of the case presented. No doubt such a system, if universally adopted, would have certain objections and would possibly run counter to the general method of court procedure, as exemplified in trial by jury. The fact, however, remains that the present system is unsatisfactory, as well to the legal as to the medical profession, and that the medical profession is placed in an invidious light thereby which it should strive by all legitimate means in its power to obviate and overcome."

We have thus freely quoted Dr. Taylor in order to get his views fully before our readers, to show how closely they correspond with those expressed by us and for the purpose of showing that his conclusions are practically the same. We, however, would not have our readers lose sight of the proposition made by us that the ideal plan would be to have the medical expert act as the advisor of the attorney in the preparation of his case *out of court*, and not appear either in person or by written report in the case. While we would thus be a partisan, such a position would be perfectly legitimate and not result in lowering of the dignity of either the court or the medical expert.

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THE PATHOLOGY OF CERTAIN INTRA-UTERINE CONDITIONS IN RELATION TO THE USE OF THE CURETTE.

BY

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SINCE Récamier, about 1850, called the attention of the profession to his uterine curette, the use of this instrument in denuding the uterine cavity has become the most frequent of gynecological operations. The markedly good results in appropriate cases and the ease with which the operation is performed have so popularized the instrument that there has developed some tendency to forget or disregard the contra-indications to its use. Especially in puerperal infections the indiscriminate use of the curette has done a vast amount of harm. So often is this the case that it has become the opinion of many eminent gynecologists that curetage has, perhaps, in the aggregate done more harm than good in this class of patients.

What conditions call for the curette, and when is it contra-indicated? How shall we interpret our findings, and what prognosis can we give from them?

I believe these questions can be properly answered only by a careful study of uterine pathology. When we have some idea of the endometrial changes which commonly result in metrorrhagia, the difference between a sapremic and septic puerperal uterus, the local influence of a submucous fibroid; or the effects of chronic inflammations, gonorrhœa, syphilis, tuberculosis, or arteriosclerosis upon the endometrium, then, and only then, can we have a truly scientific basis for treatment and prognosis in such cases.

In the following paper I wish to consider from a pathological standpoint a few of the diseases to which the endometrium

is subject, pointing out, if possible, how and to what extent curetage may be curative.

We will remember that the cervical portion of the uterus which is visible in the vault of the vagina, is covered with many layers of squamous epithelium and is ordinarily devoid of glands. At the external os this covering is usually replaced by a single layer of higher columnar cells which are continued upward as far as the internal os. The point of junction of these cells with the stratified epithelium of the portio vaginalis is subject, however, to considerable variation; in adult life, especially in multiparous women the squamous epithelium tends to extend upward into the cervical canal until the lower third or even at times the lower half may be lined by it. In women who have borne children the lips of the cervix are often considerably everted, thus bringing into view the soft, reddish columnar epithelium of the canal, which shows in marked contrast to the surrounding pale squamous layers. This so-called ectropion of the cervix was formerly often mistaken for an erosion and so treated. Such a mistake will not occur if the physician will observe that these areas show no tendency to bleed nor any induration. Scraping and the application of caustics have no permanent effect in this condition, though they may temporarily mask it by stimulating cell proliferation.

Treatment consists in the reduction of uterine engorgement or in repairing cervical lacerations which frequently exist, and which have permitted the turning out of the mucosa. In cases where no symptoms are present treatment is unnecessary. A true cervical erosion, we may say in passing, is a comparatively rare condition; much more infrequent than is generally supposed.

In the body of the uterus the epithelium and glands lie upon a bed of small, densely packed connective tissue cells, the interglandular stroma. This tissue is abundantly supplied with small arteries, larger veins and lymphatics, features which are of importance in a consideration of the dissemination of septic infection.

The stroma cell has no counterpart in other portions of the body and this, with the exceedingly rich lymphatic supply, has resulted in some difference of opinion as to the exact nature of this tissue. As high an authority as Leopold has said, "The uterine mucosa should be considered as a spread-

out lymph-gland (Lymphdrüsenfläche) which does not contain true lymph vessels, but consists of spaces lined by endothelium." Grossly the endometrium should normally appear as a pinkish, velvety membrane of uniform thickness of not more than 3 m.m. (1-8 in.) Most pathological changes result in alterations in these characteristics which are readily recognizable to the naked eye.

A very characteristic lesion, though of obscure pathogenesis, is the so-called polypoid thickening of the endometrium. Clinically this condition is characterized by profuse hemorrhages, especially about puberty, or the menopause, and often without other symptoms or apparent cause. The endometrium in these cases is irregularly thickened, presenting dilated glands often visible to the naked eye, and greatly distended veins which cause an intensely congested appearance. The large amount of tissue removed by the curette may suggest malignancy which may, however, be distinguished by the smooth-velvety, uniformly translucent appearance of the epithelium. Cases of this kind usually require repeated curetments until the atrophic changes of the menopause have taken place. In young persons several denudations may result in a permanent cure, but at times the hemorrhages become so frequent and severe that hysterectomy is necessary. In my reports of pathological examinations in these cases I always note that subsequent curetages will probably be necessary.

Another cause of intractable hemorrhages without permanent benefit from curetment is the so-called metrorrhagia myopathica, a recently described disease which is apparently due to a hyperplasia of the media and adventia of the uterine vessels, the intima and lumen remaining unaltered. With these changes there occurs a fibrosis of the uterine muscle which interferes with the normal contractibility of the organ and the control of its circulation. In the case of both the vessel walls and myometrium the production of connective tissue occurs at the expense of the elastic tissue fibres, which are almost entirely destroyed.

According to Ansbach, of Philadelphia, a diagnosis of metrorrhagia myopathica is justifiable under the following circumstances: The patient is at or near the menopause and has borne children. Physical examination shows an enlarged and softened uterus with patulous os. All other causes of hemorrhage can be excluded and the usual therapeutic mea-

tures are unavailing. Endometrial changes frequently accompany the disease, but thorough curetment has no effect upon the flow.

Much confusion has resulted from the lack of uniformity in our understanding and use of the term "*chronic endometritis*." From a purely pathological standpoint, using the term in its strict sense as a chronic inflammatory reaction in a mucous membrane, chronic endometritis is certainly an infrequent disease. What is ordinarily termed chronic endometritis is in the majority of cases an hypertrophy of the uterine glands and epithelium. While Kelly and Cullen recognize but two varieties of endometritis, acute and simple chronic, both of which are rare, such terms as polypoid, hypertrophic, hyperplastic, catarrhal, interstitial, glandular, universalis, fungoid, suppurative and tuberculous have been frequently used. Noble considers that a reliable classification is into glandular, interstitial and the combined types. It would seem rational to use the same terminology here as in the case of mucous membrane inflammations in other portions of the body, discarding entirely such adjectives as hypertrophic, hyperplastic, polypoid or fungoid,—conditions which show none of the true inflammatory reactions.

The cause of the confusion probably lies in the clinical similarity of many of the so-called subvarieties and the difficulty in differentiating them without the microscope. Other things being equal, the curette is indicated and is usually curative in the above conditions (except the suppurative and tubercular), because the operation removes all diseased, exuberant or inflamed tissue down to the uterine muscular wall, allowing a new, normal endometrium to be developed by proliferation from the minute islands which have escaped the curette in the interstices between the muscle bundles. An essential part of the treatment consists in the thorough application of an antiseptic to all parts of the denuded surface.

The chief contraindications are pelvic peritonitis or abscess, ectopic pregnancy, the menstrual flow and pyosalpinx, unless the procedure is immediately followed by an operation to remove these complications.

Hemorrhage in cases of submucous fibroids usually occurs from contiguous portions of the endometrium which have become hypertrophic from the mechanical influence of the growth, the endometrium immediately overlying the tumor

being thin and atrophic. Curetage is often contraindicated or unsatisfactory, unless the nodule is very small and can be enucleated, because it is frequently impossible to remove all of the endometrium, and if the tumor capsule be opened there is danger of sloughing.

Gonorrhoeal invasion of the endometrium usually results in chronic endometritis, the organisms penetrating to the deepest portions, and causing the usual pathological picture of chronic mucous membrane inflammation of infectious origin. A number of observers have demonstrated the gonococcus in the spaces between the muscle bundles of the myometrium which in some cases may explain the chronicity and tendency to recrudescence of the disease even after careful treatment.

Syphilis is said to produce more or less hypertrophy of the entire uterus in addition to the endometritis which is a frequent accompaniment. It has been claimed that a curetment immediately before conception will act as a prophylactic against miscarriage, but I would be inclined to doubt the efficacy of such a procedure, since, though it is conceivable that the endometritis may have an influence in causing miscarriage, yet it is generally understood that the death of the fetus and its consequent expulsion in these cases is the result of a lack of adequate blood supply in the chorionic villi due to a syphilitic obliteration of its vessels.

Tuberculosis of the endometrium is too extensive a subject to properly consider in a paper of this kind. Let me note only that the disease is usually secondary to tubal tuberculosis, so that even in cases of slight endometrial involvement an extensive intra-abdominal operation is usually necessary.

The field of the curette in these cases usually lies in its employment for diagnostic purposes.

The role of curetage in obstetrical complications, especially in puerperal infections, is a subject of great practical importance, as well as one concerning which considerable difference of opinion has existed.

With the exception of the milder cases following abortion or miscarriage, curetage for pyogenic infection has deservedly fallen into disrepute by the best modern obstetricians. The reason for this is readily understood by a study of the pathology of the puerperal infections.

The principal organisms which have been demonstrated to be causes of post-partum sepsis are the streptococcus, staphy-

lococcus, gonococcus, bacillus coli, b. typhosus, b. ærogenes capsulatus, and b. diphtheriæ. Besides these bacteria, complications are at times produced by the inoculation of the endometrium with saprophytic organisms, which show no tendency to invade the surrounding tissue but exert their activities only upon the degenerated slough consisting of portions of decidua, placental fragments and blood clots, causing putrefaction of the same. Sections of the uterus in such cases show internally a mass of putrid matter containing large numbers of the organisms, outside this a zone of round cells which completely walls off the infection from the normal muscular layers. Constitutional symptoms in these cases are due to the absorption of the poisons of putrefaction. All the local treatment that is usually necessary is the removal of putrid matter with the aseptic finger or dull curette followed by intrauterine douches of some mild antiseptic or normal salt solution together with the establishment of good drainage,—by cervical dilatation if necessary. There is reason to believe that a putrid endometritis alone, that is, without the admixture of some septic organisms is quite rare.

The most frequent cause of true puerperal infection is the streptococcus pyogenes; other bacteria are, however, common, the pathological anatomy of the lesions varying somewhat with the character and virulence of the offending organism.

In cases of mild septic infection the pathological picture often somewhat resembles that in sapremia, or putrid endometritis. Within an area of necrotic material is a well developed layer of leucocytes, beyond which no bacteria are found, while the opposite surface may show them in quantities.

The initial reaction of the endometrium consists of congestion, edema and intense infiltration with polymorphonuclear leucocytes followed by coagulation necrosis and sloughing of superficial portions. Subsequent changes vary with the causative organisms; the streptococcus and staphylococcus when virulent may produce little local change, having spread rapidly through the lymphatics, producing a systemic infection. Bumm has demonstrated that streptococci may travel through the myometrium at the rate of 2 c. m. in six hours.

In a case recently examined post-mortem with Dr. Sappington the uterine cavity appeared practically clean, though the patient had died over a month after an abortion with symp-

toms of streptococcic septicemia. Empyema and multiple pulmonary abscesses were present, yet microscopic examination of the uterus showed only small areas of coagulation necrosis here and there in the endometrium and slight round cell infiltration. This lack of marked endometrial change is usual in cases of severe septic infection. Vaginal discharge often entirely ceases, as in this case. Where the infection is a mixed one, such, for example, as streptococcus and *b. coli*, the destruction of tissue and slough in the uterine cavity is usually extensive. Stained sections show bacteria making their way by the lymphatics throughout the uterine wall, the leucocytic barrier being frequently but poorly developed.

The lesson to be drawn from these facts is as follows: By the time a positive diagnosis of puerperal sepsis is made, or at least by the time the obstetrician is prepared to undertake radical treatment we usually have an endometrium which is bathed in pus, and partially necrotic. Sinuses at the placental site teem with bacteria, the decidual vessels in many instances are also thrombosed with the clots acting as culture media while the lymphatics are choked with organisms which are making their way toward the peritoneal surface.

Curetage in such cases cannot possibly reach all of the bacteria, neither can any known antiseptic. Be denuding the whole uterine cavity the operator simply increases the size of the wound and offers new culture media and new avenues of access to the invading host.

What surgeon would carefully scrape the cavity of an acute abscess in any other part of the body? Yet hundreds of physicians who would deride such treatment have thoroughly curetted with a sharp curet in puerperal infection. The keynotes of treatment in abscess elsewhere are *drainage*, continuous and free, together with antiseptic irrigation. In what respect do the essential indications differ in the case of the uterus?

Local therapeutics in the ordinary case of post-partum infection from a pathological standpoint consists in the removal of gross masses from the uterine cavity by the finger or a dull curet gently manipulated, thorough irrigation by some clean fluid, be it antiseptic or not, and last, but not least, the establishment of good drainage.

The chronic inflammation following miscarriage and characterized by bleeding on slight provocation is usually interstitial endometritis. Other causes of metrorrhagia are incom-

plete involution of the decidua and retention of bits of placenta, the latter leading to the development of the so-called placental polyp, which is not a polyp in the strict sense of the word, but merely a piece of degenerated placental tissue round which blood clots have accumulated. In all of these conditions the curet is indicated and is usually curative.

In closing the author wishes to make a plea for the more universal study of the pathology of our cases, not at the expense of any of the other phases of medical science, but correlated with them, striving not only to cure, but to know why and how and what we cure. I have always remembered a quotation in the preface of one of my first text-books: "*Felix qui potuit, rerum cognoscere causas*,"—Happy is he who understands the causes of things.

THE HERITAGE OF THE INNOCENTS.

BY

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IN the days of King Herod, nineteen hundred and eight years ago, there was great lamentation in Judea because the decree had gone forth that all children under two years of age should be killed. Thus the jealous king hoped to destroy the innocent Child, who, in time, was to deliver Israel from Roman oppression. Sadly erroneous in his conceptions and woefully ignorant of the nature of the new kingdom about to be established against him, King Herod has perpetuated his name as synonymous with that of criminal ignorance.

The Herodian days are not yet ended. Day by day, ignorance slays its thousands—mostly helpless, unprotected innocents.

Herod should have been a guardian over his subjects, to protect them, to nurture them, to counsel them and thus develop them into the best possible intellectual and physical product. Instead, he slew them. The physician in his community becomes the guardian of the health of every child who comes within his influence. How he acquits himself in this stewardship can soon be recognized by his relations to the

community. Herod's kingship was soon ended. Some physicians, sadly enough, are likewise short-lived, professionally.

Mankind has no choice in its status of birth. We happened to first see the light in glorious free America,—cradled in liberty, in the light of scientific intelligence, and anointed by religious civilization. We might have been born elsewhere and under much less auspicious circumstances. The greater part of our blessings are gifts and not the results of any efforts of our own. It is true that our voluntary efforts may involve into subjection to ourselves and to our welfare the opportunities at hand, yet we are very futile in creating such opportunities. In matters of health and physical well-being our doom is largely fixed in our age of innocence ere we become cognizant of the greatness of its purport. Our ancestry is selected without our consultation. Our environment is the product of others during much of our nascent period. Even our thoughts and cerebral activities are established to an amazing degree without our consent or direction. We surely are creatures of circumstances.

As a tree which is planted into the right kind of soil, and, which, under proper climatic conditions, may develop to become the peer of any of its kind, so the child may attain to a maximum of well-being under the most helpful circumstances. If the tree be injured or illy nurtured in its tender age, it can never be expected to develop to its former possibilities. If the child be encumbered by superstition, by poverty resulting in ill-nourishment, or by disease, inherited or acquired, he sets forth into the world handicapped, defeated ere he comprehends the possibilities of life. Let us be charitable with such unfortunates. Ignorance of law, natural as well as statute, is no excuse in securing exemption from its consequences. Therefore, the sooner acquaintance is secured with Nature's laws and conformity is made with them, the easier becomes our future life. Laws of health and life were established from the beginning. Infraction of these laws has led to disease and death; to sin and mortality. Conformity to these laws is conducive to happiness and longevity. A general intelligence and clear comprehension of their meaning, as applied to human life, is the solution to the problem of successfully combatting disease.

We are coming to see more clearly year by year that many of our most intractable diseases are preventible. Strange to

say, children are heirs to most of these and are the chief sufferers. They who cannot protect themselves are permitted by their guardians to be subjected to the ravages of these diseases; to be reduced in numbers by death or to be encumbered throughout life by maladies which modern intelligence should obliterate from the face of the earth. Why should such diseases as mumps, measles, pertussis remain extant? Suppose each patient suffering from such disease should be perfectly isolated, how long would we hear of the disease? As long as a new nidus is supplied the disease will be perpetuated. When a dangerous fire threatens to destroy a whole city, two things are immediately attempted—the greatest vigilance in preventing spread to new areas and the destruction of the existing conflagration. These two precautions also face every physician in his management of any communicable disease. The war which is waging against tuberculosis both in treatment and prevention is accomplishing wonders for the future welfare of mankind. The success is due largely to the general enlightenment which is awaking humanity. Why should we not totally eradicate the seemingly innocuous contagions and narrow our field of warfare? By so doing, we shall eliminate much that makes for lessening the resistance to graver diseases. Much may be done in this line by general education. When people realize the nature of these diseases and the possibility of their prevention, they will hasten to their physicians for greater intelligence and tacitly follow his instructions concerning their management.

Every American-born or American-adopted child inherits one of the greatest gifts that may attend any human life,—the possibility of a good general education through the provision of our common school system. Ignorance on the part of the guardian in willfully depriving his charge from this asset to life's success, is the only hindrance to the enjoyment of this blessing by every child. The compulsory attendance law, properly enforced, overcomes even this hindrance. Since the various commonwealths provide this system of general education by generous appropriations, they have a right in turn to dictate any special education which tends to better the commonweal.

In view of this fact, the State of Pennsylvania, on April 2, 1885, provided that "Physiology and Hygiene with special reference to the effect of alcoholic drinks and stimulants and

narcotics upon the human system should be included in the branches of study and be required by law to be taught in the common schools." Very well do we remember the stubborn opposition to the enforcement of this law by teachers and even by some physicians who thought it to be an infringement upon their prerogatives. But the statute stood inexorably under the ban of the withdrawal of the State's appropriation. Some superstitious districts even threatened to accept this alternative, but general enlightenment had penetrated these dismal spots sufficiently to overcome this recourse. So the edict stood and was at least literally followed by teachers.

In spite of the fact that the spirit of the law was evaded for many years alike by teachers and directors, we as physicians, after the lapse of twenty-three years, can in various ways see remarkable results of this teaching and study. The well-aired and well-lighted house, the guarded care in cleanliness and drainage and the many other evidences of an educated hygienic conscience in the young wife, developed in the common schools, put to shame the obnoxious superstitions of her less cultured ancestors. Furthermore, she seeks suggestions from her physician rather than from her grandmother, as in former days.

The powerful crusade against intoxicants which is sweeping over our land, I take it, is largely the result of the educational work in the schools, re-enforced by the efforts of our churches against this traffic. Thus it is seen that the common schools are the medium through which the State may accomplish much that pertains to the well-being of humanity.

The benefits of the compulsory vaccination law are already unmistakable in preventing epidemics of the loathsome small-pox. Reference has already been made to the handicaps which many children possess in life. These should be removed or mitigated ere the child enters school. Too frequently, however, they are entirely overlooked until they come under the more discerning eye of the teacher. Even then the physical imperfection may be unobserved or disregarded unless the district be fortunate enough to have a medical inspector. Some districts have provided for such inspection. Should not the State make this compulsory upon all districts? Visits by such inspectors would aid greatly also in enforcing school sanitation and necessary quarantine. In many ways, this public institution affords a very opportune way of reaching

the immediate homes in regulations pertaining to public health and general public welfare.

The legacy of monetary value which we may chance to inherit is very insignificant in comparison to the mental and physical status with which we enter the world. Parents oft-times seem to forget this regarding their offspring. Most every daily paper glares with the tragic deeds of mental weaklings overburdened by inherited wealth. The avaricious spirit of the father, or the malevolent anxiety of the pregnant mother, is apt to be transmitted to the child in a manifold degree. The iniquity of the parents is indeed visited upon their children to the third and fourth generations, physically as well as mentally. No doubt, it has been your custom, as it has been mine, to enjoin upon every prospective mother consulting you to cultivate a cheerful spirit, avoid enslavement to material environment or to mental anxiety, and to anticipate with noble expectation the accomplishment in her being of the greatest event that can befall a human life. Thus she may be able to transmit a prenatal influence of infinite consequence. You remember, much effort is made in the account of the Immaculate conception to relieve the mind of the virgin mother regarding her prospect. May it not be that here the welfare of the divine Child was anticipated? If some of the precaution which is uselessly exercised in attempting to prevent "birthmarks" were observed in conserving maternal nerve force and energy, we might expect to find in future generations greater poise and less vacillation.

He who plays upon the perceptions, the sensibilities and the volitions of an innocent, a non-knowing but evolving mind, plays upon an instrument of most delicate mechanism. The slightest discord may resound unceasingly. Cerebral organizations are forming and neural courses establishing. Habits once formed are followed and scarcely reformed. The sensitive organism likewise is most susceptible to the action of drugs. Medicines applied according to the law of similars find here a most opportune field for unhindered action; and in the child, therefore, we often observe the most marvelous curative results attendant upon our prescriptions. On the other hand, we here often find the most disastrous results from the physiological action of crude drugs whether from the hands of the physician or from the patent medicine counter.

Phillips Brooks once said, "He who helps a child helps

humanity with a distinctness, with an immediateness, which no other help given to human beings in any other stage of their human life can possibly give again." In their haste to minister to adult life, even physicians may forget these little ones and fail to properly investigate their ailments so as to ascertain clearly the necessary treatment.

The vast number of charitable institutions for needy children in our country shows that the great public heart is throbbing in hushing sympathy to their bitter wail. Modern science is tempering their pains and reviving their debilitated forms. Modern education is awaking their dormant minds and pointing to sublimer fields for exploration. In general, public conscience is challenging the cause of the innocents and future generations alone can reveal the wisdom of our present foresight.

THE TREATMENT OF RETROVERSIONS FOLLOWING LABOR.

BY

N. F. LANE, M. D., PHILADELPHIA, PA.

(Read before the Homœopathic Medical Society of the State of Pennsylvania, at Harrisburg, September, 1908.)

THE treatment of retroversion following labor, is a subject that is not given the prominence it should have in our obstetrical and gynecological teachings. If more interest were taken in this subject by those who practice obstetrics, there would be fewer patients running to the gynecologist for treatment of this condition.

You all know the difficulty of treating successfully, I mean curatively, the ordinary case of retroversion, without the more or less constant use of a pessary, or the resort to operative treatment, and you also know the more or less unsatisfactory results of all methods of treatment directed to this condition in some cases. Taking the foregoing statement into consideration, and admitting it to be true, I do not know of any procedure that gives much more satisfaction to the physician than the cure of a displacement, be it acute or chronic, following labor.

There are a number of conditions that must be present to assure the successful treatment of these cases at this time,

among which are the absence of adhesions and a fairly good pelvic floor. With the conditions present which will admit of the successful treatment of a retroversion, we should watch, very carefully, all patients whom we know to have had a retroversion prior to pregnancy; for following labor is the time when a little care and patience will accomplish that which is perhaps impossible at other times.

These displacements are due to various causes, among the most frequent of which are a weak pelvic floor, or a sub-involution due to an extensive laceration of the cervix, an infection or retained secundines. All these conditions mean a heavy uterus, which in turn means a tendency to prolapse and backward displacement. Like "the last straw that breaks the camel's back," so the extra weight of such a uterus, even though it be little, decides the position it will assume after confinement.

By considering, for a moment, the physiology of the puerperium, we shall be able to understand why so much more may be done for these cases at this time, than at any other. The uterus, after labor, by contraction and also by actual atrophy of its muscle fibres, becomes very much smaller, and it is just this fact that allows of the successful treatment. The agriculturist trains his tree or vine with post or trellis, to assume the position he desires, and it is exactly so with the uterus and the obstetrician; he trains the uterus as it is growing smaller (if you will permit the expression) to assume the normal position and it practically grows there and is likely to remain there; in other words, the uterus will probably assume permanently (be it normal or abnormal) the position in which involution is completed.

Before considering the method of cure, let us see what may be accomplished in the way of prophylaxis, and you will pardon me if I digress from the subject we are considering, and refer somewhat at length, to the repair of the perineum immediately following labor, not that a perineal laceration necessarily causes a retroversion; but because it is often the lack of this supporting structure that causes a uterus with weak and relaxed ligaments to become retroverted.

All perineal tears should be repaired within a few hours of the time of the receipt of the injury. The last few years I have made a practice of waiting from twelve to twenty-four hours before applying the sutures, as I think I can coapt

the lacerated muscles better when the tissues are less swollen, there is less congestion and bleeding, and the torn edges are more easily recognized. We all know there are many failures in the primary operation, and one reason for this is the fact that the torn edges are *not* accurately adjusted, because it is so difficult, at times, to see which is torn tissue and which is abraded or congested mucous membrane, the result being that sometimes mucous membrane and torn muscles are approximated, with non-union as the result. The fact that we occasionally hear someone decry the primary in favor of the secondary operation, is proof that the primary operation is too often a failure.

I think you will all agree with me in the statement that the results of the secondary operation cannot, everything being equal, be as good as the primary, for the simple reason that at the primary operation the muscles may be brought together just as they were before rupture occurred, while at the secondary it is almost impossible to do so even if the attempt is made. If as good results are to be expected from the primary as from the secondary operation, the same care should be exercised in bringing the torn edges accurately together, and above all, remember that failure is often, I may say *very* often, due to the utter lack of any attempt at asepsis. In doing the secondary operation we are very careful to clean our hands, instruments, and the seat of the operation, we cover the thighs with sterile towels, and we are especially careful to secure sterile suture material and to protect it from contamination by removing the pubic and vulvar hair. Now, why should we expect good results in the primary operation if we disregard these simple rules which we know are so essential to success when performing the secondary? All these precautions require very little extra care on the part of the obstetrician, the removal of the vulvar hair being the most troublesome and difficult part of the preparation. I have often wondered how we could expect union by first intention, when watching a suture being dragged through the vulvar hair and perhaps drawing one of these little sources of infection into the suture track. Let us then be as careful when performing the primary, as we are when doing the secondary operation and our results will be quite as good and probably better, if union is not prevented by infection from the uterus. I appreciate the fact that there are certain

instances in which it is impossible to get very good results owing to the character of the laceration, which in difficult and prolonged forceps cases may, from the traumatism of the delivery, result in more or less sloughing of the tissues, thus preventing union no matter how carefully the laceration be repaired; but it is not of these that I am speaking. Until I adopted the plan of waiting a few hours before repairing a perineum, I was under the impression that the pressure of the head and the traumatism of the labor rendered the parts more or less insensible to pain; but I find the stitches can be introduced with just as little pain a few hours after, as they can immediately following the birth of the baby, and that the only pain usually complained of is from handling the parts and from the introduction of the skin sutures, and these latter are painful even if introduced immediately upon the completion of labor.

If the patient is under an anesthetic, the perineum should be repaired at once as the lacerated tissues can be exposed thoroughly and without pain, in fact, if the tear is very extensive it is always well to administer an anesthetic.

Ordinarily there is no attempt made to repair a lacerated cervix primarily, unless there is hemorrhage; although it would, no doubt, in many instances, prevent a sub-involution.

Another method to prevent a retroversion is to secure a good contraction of the uterus, not allowing the patient to get up until the uterus is in proper condition for this event. If the uterus shows a tendency to become retroverted before the time arrives, as described later, for the pessary treatment, the attempt should be made to keep it forward by postural treatment, requesting the patient to lie as little as possible on the back. If, in spite of efforts to keep the uterus forward during the first two or three weeks of the puerperium, it should become retroverted, immediate steps should be taken to correct the displacement.

In making a plea for the early treatment of these cases I must of necessity, make a plea for the use of that much-abused instrument, the pessary; for it is the only practical means at our disposal for the correction of these displacements, and even this instrument cannot be used until there is a moderate involution of the vagina. Occasionally, the sim-

ple replacing of the uterus is all that is necessary to effect a cure.

After replacing the uterus, select a pessary large enough to hold the uterus forward, always being careful to err on the side of the smaller instrument if there is any doubt in your mind as to the proper size to select. Even when the correct size is chosen, more perseverance is needed than in the ordinary case, and it often requires considerable coaxing and frequent replacements before it will stay in its normal position. This is doubtless due to the lack of tone of the vaginal walls at this period, they being more yielding than in the nonpuerperal state.

When once the pessary holds the uterus forward for a few days the victory is usually won, and all that is required is to watch the case from week to week, reducing the size of the pessary if possible as the vagina becomes smaller, and finally in six or eight weeks discarding it altogether and the case is cured. Such patients should, however, be examined occasionally for two or three months in order to avoid relapse. If the case be an acute one the cure should be permanent, and if chronic, if the conditions such as I mentioned in the first part of this paper are present, the cure should be permanent in the majority of instances.

In conclusion, I would urge those who have such patients to treat, to have patience with them and not become discouraged if for the first few treatments the result seems in doubt. Personally I have often replaced a uterus of this kind, selecting a pessary which I considered large enough, and at the next visit of the patient to the office found the uterus again retroverted, this occurring a number of times; but finally as involution took place, it has remained in place much to the satisfaction of both doctor and patient.

The key-note, then, to success in the treatment of these cases is watchfulness and perseverance. Watch our patients after confinement, for three weeks and thus know if there is a displacement and if one is found, persevere in the treatment for a reasonable time before giving up the ship.

CHOREA.

BY

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(Read by title before the Homœopathic Medical Society of the State of Pennsylvania at Harrisburg, September, 1908.)

A FUNCTIONAL neurosis, characterized by irregular, spasmodic movements, which may be confined to certain groups of muscles, or may involve to a greater or less extent all the voluntary muscles of the body. The literature of the disorder is very extensive and in order not to exceed the scope of this paper, I shall confine myself to a consideration of the most important points of the etiology, symptoms, course, pathology and prognosis and consider the treatment of it a little more extensively.

Historically, the disease was known in the middle ages, when it appeared epidemically during religious pilgrimages, hence, some of its popular names, St. Vitus, St. Guyes, St. John's dance, etc., etc., and as such still finds its analogues in the so-called Convulsianaires of France, and the Jumpers in this country. As seen, however, most frequently by the general practitioner and seen in its typical form, it is essentially a disorder of the formative period of life; 75 to 80 per cent. of the cases occurring before the eighteenth year, and more especially between the eight and eighteenth. As to its occurrence relative to sex, the ratio is 3 to 1 in favor of females. This, in a measure, accounted for by the greater instability of the female nervous system; and, secondly, by the disturbing influence of puberty. Psychic influences, such as fright, fear, etc., play an important role. Over-study, especially if accompanied, or giving rise, to a lowering of the general health. Heredity is important, choreic children are frequently the offspring of neurotic parents, especially the mother. The importance of rheumatism as a causative factor was first brought to the medical attention by Bathe and See in 1849 and 1850, and it is especially during the decline of the fever and the subsidence of the articular lesion in the acute inflammatory form, that chorea manifests itself.

Bright, in 1839, insisted on the frequent co-existence of chorea and cardiac lesions. Pregnancy occasionally gives rise to the disease, and according to some writers, is apt to con-

tinue for years, especially if it develops during the later months. Vermicular affections have been known to cause it. The negro race appears to be immune against the disease, while Jews are particularly prone to it. It is said to be almost unknown in the tropics, but is especially prevalent during the fall and spring months in the temperate zone.

Chorea has been designated as general, or chorea major, and partial, as chorea minor. Other defining terms, such as chorea of pregnancy, saturnine, rheumatic, etc., are self-explanatory and require no further elucidation.

Symptoms: As seen in children and youths, the irregular movements are generally preceded by a period characterized by an altered disposition and generally irritability of temper. At first the movements consist of a nervous twisting of the fingers and hands, soon followed by jerking motions, particularly of arms and lateral motions of the trunk, twitching of the facial muscles, particularly the corners of mouth, giving rise to grimaces and a ludicrous appearance in general, with shrugging of the shoulders. In exceptional cases, no further progress is made. Generally, however, successive groups of muscles are brought into irregular action, until at its acme, the patient presents a picture which is distressing to behold. No longer able to maintain his equilibrium, he plunges hither and thither, every voluntary muscle of the body being apparently implicated. He is not able to feed himself, nor take care of the functions of the lower bowel and bladder, this involuntary defecation and urination are rather exceptional. The mental status of the patient is always more or less changed. Irritability predominates, in other cases a habitual tendency more and more to imbecility. As a rule, the choreic movements cease during sleep.

In certain cases, the irregular movements are confined to a certain group of muscles without any tendency to involve others. I saw such a case in a middle-aged man; the movements consisted in a spasmodic twisting of the head towards the right side. In hemichorea and post-hemiplegic chorea, the disorder, as the name implies, is confined to one side of the body, and are generally caused by grosser pathological changes in the cerebrum. Anaemic conditions, especially in females, usually co-exist. The urea is said to be decidedly increased in the so-called rheumatic cases.

The duration of chorea varies from sub-acute, 6-12 weeks, to chronic, lasting for years. Generally speaking, however, it is readily cured in the young, tho it is well to be prepared to meet disappointments. Death has occurred occasionally, caused by exhaustion, due to long-continued and excessive myakinesis. When the disease appears in middle life and is not traceable to a mere depreciated condition of the blood and nervous system, the prognosis as to a cure is doubtful. This is particularly the case in the so-called chorea of the aged, where the irregular movements are the forerunner of, or coexistent, with other serious organic cerebral lesions, such as paresis, sclerosis.

As to the pathological anatomy, I shall say but very little, as I have nothing to offer but what is found in our textbooks. The consensus of opinion of those who have investigated the pathology of the disease, seems to be that we have to do with a thrombosis of the capillaries, and possibly some larger vessels and that the chief localizations of these changes, occur in the corpora striata. Some, however, hold that in certain cases the disease is of purely spinal origin.

The treatment of chorea may be summarized under two heads. The hygienic and the medicinal. The nutrition of the patient should be brought up to the highest point possible. Proteids and fats should form the principal part of nutriment. Concentrated meat broths and scraped raw beef are preferable to meat in substance, especially if digestion is impaired. It may become necessary to give all food in liquid form, should the act of swallowing be seriously interfered with, to prevent solids from entering the larynx and trachea. Where the system is greatly reduced, it is well to administer nourishment at frequent intervals and in rather small quantities. A plentiful supply of fresh air should be insisted upon. Exercise should be greatly curtailed and in chorea major it may be advantageous to keep the patient in bed. Even mild cases should lie down several hours during the day. Attendance at school should be interdicted. All mental excitement, fear, worry, etc., should, as much as possible, be eliminated and any reference to the infirmity in the presence of the patient be avoided.

Turning now to the medical treatment of chorea, a few words may be said as to allopathic treatment. Hamilton considers worthy of mention but four remedies, Arsenic, Strych-

nine, Iron and Fats, in order of their importance. Dr. Hanen, of Boston, found that in 25 cases which he followed up, the duration of the disease was 94.5 days, while in others—number not stated—where Arsenic was used, it was only 77 days. In contradiction to this, we find a statement by Drs. Gray and Truckwell, who carried on investigations along these lines, that the duration of the disease in different sets was respectively 72 and 76 days, where no drugs had been given.

In a consideration of the homœopathic treatment of chorea, it should be emphasized that the remedy shall correspond with the constitutional peculiarities of the patient. The mere fact of irregular, spasmodic movements, unless they present peculiarities characteristic of the remedy, are not indicative. I shall consider the remedies in sequence of their importance, rather than in alphabetical order.

Magnesia phos., especially indicated in neurotic constitutions, subject to neuralgic and spasmodic affections. Pains are relieved by heat and pressure. The choreic movements, while general, are not apt to be violent, as we see them in Cupr. Stram. and Caust. I have found it especially indicated in those cases, where the lowered nerve tone was due to rather slowly acting causes, such as over-study, worry, fretting. Unless another remedy is indicated, I generally commence the treatment with Magn. phos. In his "Forty Years Practice," Jahr lays special stress on the use of Causticum in chorea, then he makes this statement, "Thus far I have employed this remedy only in chorea minor," and "in cases without any derangement of the mental faculties." In my hands Causticum has proven curative in two of the worst cases of chorea major which have ever fallen to my lot to treat.

Case 1. Miss K. Y., aet 16, dark hair and eyes. Parents living, healthy and of phlegmatic temperament; without the least neurotic tendency. Patient not particularly neurotic, somewhat excitable. Menstrual function normal. Could discover no cause. Had had twitching of hands, fingers and facial muscles for some days before I saw her. The symptoms increased rapidly until they reached a degree of unusual severity. Could neither stand nor walk without being violently thrown to the ground; swallowing difficult. Mentally she almost became idiotic. Stool and urine were passed involuntary. I commenced the treatment with Magn. phos., followed by *Actea rac.*, *Agaricus*, etc., but no apparent effect upon the

case. I then prescribed Caust. 30, which soon brought about an abatement of the symptoms and a complete cure within a reasonable time. There has been no recurrence of the disorder since, eighteen years ago.

Case 2. Girl, aet 14, subject to convulsions in infancy. Family on mother's side extremely neurotic. Symptoms came on very soon after being frightened by an epileptic imbecile, who violently took hold of her. The spasmodic movements, apparently involved every voluntary muscle of the body, and reached a high degree of intensity. She had to be kept in a bed on the floor, to prevent her from injuring herself by falling out of bed. She was stupid and rather apathetic. She had to be fed like a baby; speech indistinct; involuntary micturition. Ignatio failed to give relief. Caust. 30x cured her. No recurrence since, twelve years ago. The presence of paralytic symptoms—tongue, bladder, etc.—and cases caused by fright, Ign. failing to give relief, call for Causticum. Should chorea develop after the suppression of eruptions, eczema, etc., Caust. is likely to prove curative. Actea rac. is a remedy especially to be considered in rheumatic cases and in girls during puberty or in women generally when the chorea is connected with pelvic disturbances or menstrual irregularities. Sharp, lancinative pains in various parts of the body, great soreness of the muscles. Great sensitiveness of spine to pressure or even touch, resembling fire, Agaricus. This remedy has a peculiar itching, stinging of skin, like frost bites, twitching of facial muscles and also of eyelids. Dr. John H. Clarke, in his little book, "The Prescriber," says of this remedy: "Twitching, jerking, restlessness, in children with bluish faces and fingers, subject to chilblains; the most commonly indicated remedy." I can only say that this remedy has disappointed me. Mygale, in its pathogenesis presents a perfect picture of chorea. Jerking of facial muscles (Agar.); one arm in constant motion. On attempting to control the movements, patient loses his breath, must take a deep inspiration to recover itself. Hemichorea (Act. rac.) Ignatia, the first remedy to be thought of, when fright has been the existing cause; mentally depressed, sighing, or else, alternating mental states, hysterical. Nux Vom. like the preceding remedy would scarcely be thought of in connection with chorea, by the spasmodic symptoms themselves, which point rather to tonic contractions. Nevertheless we

have here a particular demonstration of Hahnemann's teaching, "That the peculiar symptoms of the patient should find their counterpart in the peculiar and characteristic symptoms of the remedy."

Hence both these remedies are especially indicated by this peculiar mental symptom. Permit me to cite a case. Miss N. N., age 17, was brought to me from out of town. Has been suffering from chorea for over a year, during which time she has been under constant allopathic dosing. Iron and Arsenic appeared to have formed the bulk of the latter. Is able to walk fairly well, hands and facial muscles in a constant state of irregular motions; has to be fed, but swallows without difficulty. Menstrual functions normal, appetite poor, bowels constipated. Used to be kind and affectionate, but now is very cross and irritable, flies into a passion from the least contradiction. Sleeps fairly well, but generally awakens about 3 or 4 P. M. Movements cease during sleep. No ascertainable cause. Mother very robust and apparently without nerves, illiterate and unable to give much of a history. Patient somewhat emaciated, worn, but not markedly anaemic. Prescribed *Nux Vom.* 1m (B. & T.) three doses with plenty of placebo. In six weeks all symptoms had disappeared and patient is herself again. She returned in about 18 months with a recurrence of symptoms. A single prescription of the same remedy and potency caused the disappearance of all the symptoms.

A number of other remedies have been recommended by different writers and of these I will mention a few of the more important ones:

Cupr. Irregular movements commence in fingers and toes, accompanied by silly grimaces.

Stram. Movements violent from the beginning with decided mental disturbances, especially when caused by severe mental shock.

Cina or Santonin, when vermicular affections appear to be the cause of the trouble, *Natr. mur.*, and *Sticta*. Patient jumps up and down.

Ferrum arsenicosum. Dr. E. Hale claims to have had good results from this remedy in cases presenting symptoms of both *Ferrum* and *Arsenicum*.

Veratrum vir. Most violent distortions of body, not ceas-

ing during sleep. E. Hale in his "New Remedies," reports a number of cases cured by this remedy.

Without wishing to enumerate more, I can only say that remedies, especially the deeper acting, so-called antipsorics, may be called for without any reference to the choreic movements themselves. I trust that the discussion may bring out other important factors bearing upon the disease and its treatment.

A REPLY TO DR. CARMICHAEL'S "HOMŒOPATHY."

Editor of the Hahnemannian Monthly:—

Under the above heading E. P. Anshutz, in the September HAHNEMANNIAN, makes some remarks which are misleading in their import and false from the standpoint of correct pharmaceutical knowledge. Had he been so disposed he could have found a complete refutation of his attempt to justify poor pharmaceutical preparations by sentimentally claiming that they are Hahnemann's,—in the article entitled "The Homœopathic Pharmacopoeia; A Plain Statement of Facts," by J. Wilkinson Clapp, M. D., in the May HAHNEMANNIAN.

Mr. Anshutz says. "This 1x Dr. Carmichael claims is stronger than the old tincture made according to Hahnemann's directions from 'equal parts of the drug and alcohol,' and again one part drug macerated in nine parts alcohol makes, according to Dr. Carmichael 'a stronger tincture' than the macerating of equal parts of drug and alcohol. Boardinghouse keepers ought to welcome this discovery and apply it to the making of the breakfast coffee. The severest censure must be placed on Dr. Hahnemann's shoulders for he it was who introduced the method so abhorrent to Dr. Carmichael."

Now let us have the facts. We have now about 275 fresh plant tinctures—of these *Hahnemann gave directions for the making of only 47*. Of the 47, Hahnemann prepared 27 by expressing the juice and adding an equal quantity of alcohol (this is *not* taking equal parts of the drug and alcohol as Dr. Anshutz would have us believe). This method gives a tincture *not over six per cent. drug strength*, whereas the tinctures of the Homœopathic Pharmacopoeia *made by macerating the fresh plant (including its juice) are ten per cent. drug strength*.

The active medicinal principles that exist in the juice, exist

to as great an extent in the plant substance so that if the weaker tincture made from the juice acts (and we know that it does because we have had provings made with it) then the stronger tincture made by maceration should act better and Mr. Anshutz should not prefer to give to the profession an inferior pharmaceutical preparation.

However, *Hahnemann made it optional in five cases out of these 27* to use either the fresh or dried plants, and if you choose to use the latter he directs that the tincture be made by maceration in the *proportion of one part drug in twenty parts alcohol* (not one part drug to one part alcohol as Dr. Anshutz would have us believe).

Mr. Anshutz and pharmacists who follow the directions of a book called the American Homœopathic Pharmacopœia, do not even follow Hahnemann's directions for the preparation of all these 27 tinctures for they make tinctures of Pulsatilla, Rhus Tox, Stramonium, Verbascum Cannabis, Arnica and Euphrasia by *maceration instead of using the expressed juice*. Why does Mr. Anshutz and the pharmacy with which he is connected, violate Hahnemann's instructions for the preparation of these important remedies? There is only one answer—it is because the preparation of these tinctures by maceration gives a better pharmaceutical product.

They are better tinctures than if Hahnemann's directions had been adhered to. Now if there is any good reason for preparing the seven tinctures named by maceration, it applies to the remainder of the list. The Homœopathic Pharmacopœia of the United States is consistent and prepares all fresh plant tinctures by maceration.

Mr. Anshutz and the American Homœopathic Pharmacopœia prepare the majority of their fresh plant tinctures by using one part of the plant to two parts alcohol. *Hahnemann had no such rule for making tinctures.*

If we consider the *dried plant tinctures*, Hahnemann made the majority of these in the proportion of *1 part drug to 20 parts alcohol*. Here again Mr. Anshutz and the American Homœopathic Pharmacopœia disregarded his instructions and make their tinctures in the proportion of one part drug to five parts alcohol. *Hahnemann knew that it would take more than five parts of the menstruum to exhaust the drug.* Here is his rule Vol. 2 Chronic Diseases, "All those drugs which can only be had dry should be pulverized and

20 parts of alcohol should be added to one part of the powder." The French Homœopathic Pharmacopœia has adopted 1 part drug in 20 parts menstruum as the official strength for tinctures. This is very far from equal parts of drug and alcohol which Mr. Anshutz would make us believe were Hahnemann's directions.

The truth of the whole matter is that the Homœopathic Pharmacopœia of the United States is nearer to Hahnemann than its critics. The committee of homœopathic pharmacists and physicians who prepared it wisely fixed upon one part of the drug to ten parts of menstruum as the best average proportion for drug-strength of tinctures.

Hahnemann does not deserve "severest censure" as Mr. Anshutz suggests. He did not make tinctures of one part drug and one part alcohol. Hahnemann is not the partner of Mr. Anshutz in any such tincture-making.

Mr. Anshutz and other pharmacists would make sentimental appeals to past history, instead of furnishing preparations that have been demanded officially by the profession. He says, "On the action of these medicines homœopathy grew and flourished up to 1897 at least." *This is not the question under consideration.* For illustration, no one questions that Belladonna tincture has acted when made from the expressed juice but that is not the best way to make the tincture. The fact that it was Hahnemann's way did not for a moment prevent the American Institute of Homœopathy and the Ophthalmological, Otological and Laryngological Society when they entered upon the great modern proving of Belladonna from ordering that the tincture used should be prepared in Germany according to the Homœopathic Pharmacopœia of the United States. The tincture was so prepared—by maceration and of ten per cent or 1x drug strength.

It is the business of our pharmacists to furnish the profession with the best products of the science and art of pharmacy. They at least need not worry about "the welfare of homœopathy." It has not been advanced by the various compound tablets, pile cures, whooping cough and croup syrups and other mixtures that adorn their shelves.

In regard to Sepia and Aconite which I quoted as illustrations, Mr. Anshutz says they made their Aconite and Sepia (and other medicines) according to the directions given by

Hahnemann in the *Materia Medica Pura* and *The Chronic Diseases*.

I have shown above that generally speaking they have *seldom followed Hahnemann's instructions*, but if they had (for illustration) made the 27 tinctures by expressing the juice and adding an equal part of alcohol *they would still be reprehensible if they continued to make such inferior tinctures in the light of present pharmaceutical knowledge*.

Sepia is insoluble in alcohol and water. It diffuses through the latter but soon precipitates. You cannot, therefore, have a tincture of Sepia. However, the book that Mr. Anshutz prefers, the *American Homœopathic Pharmacopœia* directs that "the pure powdered Sepia is covered with five parts by weight of dilute alcohol," etc., to make a tincture and says that the drug power of this tincture is one-tenth.

It is from such faulty pharmaceutical methods that the standard pharmacopœia delivers us. Mr. Anshutz need not worry about the "uprooting of century-old pharmaceutical methods." *If they are faulty—if they are not the best—then let them be quickly uprooted for the benefit of our school.*

The American Institute of Homœopathy contains "many conservative physicians" from whose ranks the call went forth for an uniform scientific standard for the preparation of our remedies. They realized that it was for "the welfare of homœopathy" in the future that its pharmaceutics should be rescued from its chaotic state and placed upon a uniform scientific foundation.

The Homœopathic Pharmacopœia of the United States is the product of the labors of such conservative men as Dake, Wesselhoeft, Cowperthwaite, Kinne, Arndt, Mohr, Moffat and others. They have been assisted by such pharmacists as Henry M. Smith, J. W. Clapp, William Boericke, Lewis Sherman and others.

In this work homœopathy has a standard that will stand the tests of scientific inquiry. It is not perfect—such a work cannot be. It will need revision from time to time. Its methods however are scientific and as such it is a necessity for the progress of the scientific school of Hahnemann.

T. H. CARMICHAEL, M. D.

EDITORIAL

A SUCCESSFUL MEETING.

THE Harrisburg meeting of the Homœopathic Medical Society of Pennsylvania will go down in the annals of the Society as one of the most enthusiastic and successful in the history of the organization. The key-note of the meeting was loyalty to homœopathy and determination to fight for the professional and legal right of homœopathic practitioners. Surely this is a cause in which every homœopath in Pennsylvania can and should lend his hearty co-operation and those who are outside the State Society should feel it their duty not to let another year go by without adding their names to the list of those already enrolled in fighting for the good cause.

The attendance was larger than it has been for several years, about two hundred physicians being present.

We have been informed on excellent authority that at the recent meeting of the allopathic State Society at Cambridge Springs the number of members registered was four hundred. When we consider the enormous preponderance of allopathic practitioners in this State, we feel that the homœopaths have a right to be proud of their State organization and of the men who worked so hard to make the meeting a success.

But there was something about the Harrisburg meeting more encouraging than mere numbers, namely the unity and enthusiasm which was everywhere exhibited for the advancement of homœopathy. The attacks of the old-school on the legal rights of homœopathic practitioners, instead of injuring homœopathy, has only urged us on to united effort and to eager determination to stand by the cause which we believe to be just and right. At an informal luncheon tendered the visiting members by the homœopathic physicians of Harrisburg on September 22, this enthusiasm reached its highest pitch and as speaker after speaker declared his faith in the teachings of homœopathy and urged that all practitioners of our school should stand in adherence to those principles, the bursts of applause and approval plainly showed that they voiced the sentiments of all present. Even two prominent

members of the dominant school, who were present as guests, made short speeches in which they commented favorably upon the strength and loyalty of our State Society and expressed the wish that the legislative bodies of our State would see that all just rights and privileges of homœopathists were preserved. One of the exhibitors, who was also present at the Cambridge Springs meeting of the dominant school, said that the enthusiasm of our meeting made those of the other school seem like a grave-yard. We need some more of this enthusiastic spirit in our gatherings.

There are a number of homœopathic physicians in this State, we are sorry to say, who never attend any meeting, either of the local or of the State Society, who think homœopathy is growing weaker and dying out. We need to wake these men up to the fact that it is not homœopathy that is dying but themselves who are shriveling up, medically speaking. As a matter of fact, the position of the homœopathic school is daily growing stronger both from a scientific and from a political standpoint. A new wave of enthusiasm is spreading all over England and the United States and the members of the dominant school are fast seeing that as they cannot hope to crowd us out they must try to absorb us. Recently the Philadelphia County Society as well as several other county societies throughout the State, have come forward with the olive branch and have offered to take us into their fold *provided we will throw away the banner of homœopathy*. And how astonished they are that we have refused to accept of their liberality (?) and cling to the principles and to the methods that have earned us our professional success and that have done so much for the alleviation of human suffering. As well might the English in Philadelphia have offered the army of patriots at Valley Forge the comforts and luxuries the City afforded provided that they would haul down and denounce the starry flag for whose glory and honor they had trodden the bloody field of battle and endured the no less dangerous terrors of famine and cold. No! the homœopathic practitioners of Pennsylvania stand committed to a cause whose banner and whose principles they can never surrender until the truths of homœopathy are received by the dominant school as rational and co-equal with any system of medical therapeutics known to scientific medicine and the practitioners of homœopathy are given recognition both before the profession and before the public as

the professional equals of physicians of any school or class. Side-door entrances and cunningly worded provisions will be spurned by every true homœopath and every broad-minded man and any acceptable offer of affiliation between the schools must come officially to our State organization and must be founded upon the broad principles of professional unity and mutual benefit to both schools.

When our friends, the enemy, have reached the point where they are able to view the question of amalgamation from this standpoint, the homœopathic school will be only too glad to welcome the day when all legitimate practitioners of the healing art shall march under one banner with one common name for one common end.

Until this full and public recognition of the truth and value of homœopathy shall come, and the discoveries of modern science are fast hastening the day, the plain duty of every homœopath is to stand firm in the principles which he believes to be true and in the defence of the right and privileges which have been entrusted to him by our medical predecessors.

THE PERMEATION OF MODERN MEDICINE BY HOMŒOPATHY.

THE above title would make an interesting subject for a long and historical address but a complete review of the subject would be beyond the scope of this editorial. Our object in the present communication is to call attention to the gradual adoption by all scientific physicians of the principles laid down by Hahnemann, as illustrated by the address of Dr. M. Howard Fussell, Chairman of the Section on Pharmacology and Therapeutics of the American Medical Association, Chicago, 1908. The title of this address was "Simplicity in Prescribing."

After making the general statement that the physician's duty is to aid Nature in bringing about a cure he adds:

"In so far as drugs are employed in thus aiding Nature, it must be remembered that, even with our properly boasted advance of knowledge, we are woefully ignorant of many of Nature's methods, and know little accurately of the effects of chemicals and drugs on these methods. We know practically

nothing of the effects of the myriads of combination of drugs. We do know the physiologic action of enough simple drugs or their active principles so that we may properly employ them in helping Nature rid herself of injuries however obtained.

"The physician, therefore, acts wisely when he uses only a single drug or a simple combination of drugs which experience has taught him or he has learned from others will do good but the limitation of which he recognizes. Of necessity one can not have the slightest idea of the effect of a mixture of drugs when he is ignorant of the effect of any one of the ingredients of the mixture."

Though Dr. Fussell does not state that he derived these views from reading the works of Hahnemann, he has followed Hahnemann's thoughts and words so closely that we can attribute them to no other source.

After lamenting the very common custom of treating the disease according to its name, the writer says:

"The sooner our young men are taught and come to realize what the master minds for ages have always taught, and what Waring wrote in 1866, that 'the practice of treating a disease according to the name, without minutely examining into each particular case and adapting the appropriate remedies to the several indications which present themselves, can not be too strongly reprobated.'

"Then, and not till then, will fall out of fashion the prescribing of nostrums, the combining of drugs of unknown quantities, of ethical formulas and of any formulas ready made, be it found in the National Formulary, in the Pharmacopeia, in Non-Official remedies or where not."

And why pray, does Dr. Fussell give Waring the credit for this idea? Why is he not fair enough and brave enough to say that Hahnemann made this statement seventy-five years before Waring's day and that practitioners of homœopathy for a century have been assailed by a perfect storm of invective and criticism by the members of the dominant school for insisting upon the very facts which he now commends?

The writer next goes on to trace the evils of the "shotgun" mixtures and the proprietary preparations to neglect or ignorance of the above mentioned principles of medicinal therapeutics. We do not care to discuss that phase of the subject at the present writing. We have simply quoted these few sentences to show how the principles of homœopathy are permeating the minds of allopathic authorities. There is one query we

would like to raise in closing: *"Is Dr. Fussell ignorant of the fact that the two therapeutic principles which he makes the basis of his article are taken directly, and almost verbally, from the writings of Hahnemann, or is he afraid to give the credit where it belonged for fear of offending his professional confreres?"*

DIET AND HEART DISEASE—Duckworth, in the London "Practitioner," says that plain food of all varieties, plainly cooked, taken in regular meals, without any overloading, or excess in solids or liquids, is to be enjoined. Gastric, or intestinal, dyspepsia is naturally inconsistent with favorable nutrition of the body generally, and of the myocardium in particular. In the young, so long as sufficient food is taken, there is no need to encourage excess, or to feed habitually between meals. Strong meat soups and essences are to be avoided, and tea sparingly taken by both young and older patients. As a rule, all alcoholic drinks are best omitted from the diet, and tobacco smoking is to be abjured, or very slightly indulged in, and then only after a meal. If tea or tobacco induces palpitation, neither must be used. If these measures are imperative in the case of simple myo-hypertrophy of the heart, they are even more so when failure of muscular efficiency shows itself by the well-recognized symptoms of dyspnea, palpitation and oppression of the chest.

If, as a result of this failure, there is dropsy, the diet has to be modified. It is necessary to feed such patients with small meals, and to limit the amount of fluids of all kinds. It is also desirable to make the principal meal soon after mid-day, and to enjoin a lighter one in the evening; to avoid giving, at any one time together, proteids and carbohydrates. The choice of food is hardly important so long as it is simply prepared and readily digested. Predigested food is not so necessary as is commonly believed, but it may be needed in some cases. Soups and milk, therefore, are unwisely recommended in most instances, as tending to flatulence and discomfort in bedridden or sedentary conditions. Coffee with an equal part of milk is often a good cardiac stimulant, and may be better digested than tea as commonly made. A small cupful of freshly made China tea, with cream, may be given in the morning, and as much cocoa with milk later in the day. Small amounts of water or unaerated, indifferent spa water, may be given between meals. In the later stages of progressive heart failure with tumidity of the liver and dropsy, predigested foods may be employed; milk and barley water with citrate of soda and Koumyss may prove sufficient nutriment till some measure of appetite returns. Small quantities of iced champagne may prove useful. The question of withholding all salt from the food is worthy of consideration as soon as dropsical symptoms appear, and this plan may be tried.—*Charlotte Medical Journal.*

GLEANINGS

OLIVE OIL IN THE TREATMENT OF GASTRO-INTESTINAL DISEASES.—Blum (Berl. Klin. Wochenschrift) gives the results arrived at in Ewald's clinic during the last year. In his hands the remedy has not been sufficiently successful to justify the claims made for it by Cohnheim as to its usefulness in hyperchlorhydria, ulcer of stomach and duodenum, and stenosis of the pylorus, and suggests that the cases reported by him in which benefit was derived were really cases of hyperæsthesia of the gastric mucous membrane. The conclusions at which he arrived were, that undoubted ulcers of the stomach and duodenum were not benefited, and in some cases hæmorrhage followed the ingestion of the oil, but whether only as a coincidence it was impossible to say. The oil was not liked by the patients, nor readily tolerated in the large doses recommended by Cohnheim; but he found that smaller doses were apparently quite as efficacious. In hypersecretion and hyperacidity the oil was of undoubted use, as it inhibited the secretion of hydrochloric acid, regulated the bowels, and promoted nutrition. In pyloric stenosis with dilatation it produced considerable disturbance, as it was retained in the stomach and became rancid, and did not appear to favor the passage of the food through the pylorus.—*Charlotte Med. Jour.*

THE DIET IN TYPHOID FEVER.—Much controversy has been waged over diet. Most of us have our own ideas and are not easily convinced that any others can be better. No matter what views are advanced some one will disagree vigorously, which is by no means a disadvantage. This divergence of opinion is not surprising when we consider what a protean disease this is and as much so in the ways in which it is handled as in its manifestations. Many patients will go through an ordinary mild attack with any reasonable kind of food, but I feel that in the attack of ordinary severity and in all severe attacks, the simpler the diet the better for the patient. Milk and albumin water are satisfactory, easily obtained and prepared, and cheap. We should always be careful to make certain that we are not giving contaminated milk. For the account of a good object-lesson as to the importance of this precaution a paper by Edsall may be consulted. To these may be added the various modifications of milk, of which whey is specially useful, bouillon, strained gruel, ice cream, tea and coffee, and sometimes cocoa; this list really gives considerable choice. Emphasis should be laid on the value of whey in the dietary. In the conditions in which milk disagrees whey may be given with great advantage. The importance of carefully watching the stools and being guided by them as to changes in the diet should be remembered. In all cases special emphasis should be laid on the giving of large amounts of water. Let one hundred ounces (3,000 c.c.) of urine a day be the minimum to be desired, and often it is better that larger

amounts than this should be passed. Consider the experience of the Lakeside Hospital in Cleveland, where it was found to be a saving in the time of the nurses to have one nurse especially detailed to do nothing else than give water to the typhoid fever patients. There does not seem any evidence for the opinion held in some quarters that there is the possibility of harming the kidneys. The work of Sollmann and Hofmann speaks against this. The voiding of large quantities of urine does not seem to cause the patients any disturbance. There does not seem to be any danger of giving the circulation too much work to do in handling this fluid. One should use judgment if the myocardium is weak, but in a large series of cases no evidence of overloading of the heart was found.

There are certain intestinal conditions in which there seems no question of the advantage of the simple diet. These are especially meteorism and perforation. With any tendency to tympanites, it is wise to give the simplest diet and not too much of it; when tympanites is present the diet should be reduced. Therefore, does it not seem that on the simple diet there is less chance of its appearance? I am of the opinion that liquid diet and large amounts of water are the surest preventives of meteorism. Certainly when this treatment is carried out the occurrence of meteorism is reduced to a minimum, and the best treatment of meteorism is its prevention. If perforation occurs and operation is done early, it is a great disadvantage to have the intestines distended or full of material. We can count on a certain percentage of perforations in any large series of cases, but we can not tell at the outset which ones are to perforate.

Under the heading of diet reference must be made to the so-called predigested foods, which are so extensively used. Is their use justified or to be recommended? Many of the profession by their actions answer in the affirmative, and the question comes as to how much justification there is for this belief. I would advise all those who have any doubts on this subject and those who believe in the value of these foods to read with an open mind the report of the Council of Pharmacy and Chemistry of the American Medical Association on them. The main objections to their use may be thus summed up:

1. They contain comparatively little nutriment.
2. They may be directly injurious from the presence of peptones or albumoses, which are of uncertain composition and may be toxic or become so.
3. The presence of alcohol in them may be harmful.
4. They are expensive.

Clinically they certainly appear in some cases to upset the stomach and cause diarrhea and distention. To give amounts of these foods which would go even a small way toward nourishing the patient, means the administration of considerable amounts of alcohol. If alcohol is to be given, it is better to give it as such and not as the constituent of one of these foods.

That any one who knows their composition can persist in considering that they have some mysterious nutritive virtue is hard to believe; and yet how else can we explain the blind belief in their value, especially when we consider that they are "drug-store" foods and may have had

some time to "ripen" before being used? Their cost is a serious objection, especially when so little is obtained in return.—*Thomas McCrae in the Jour. A. M. A., Vol li. No. 12.*

EXPERIMENTAL CONTRIBUTION TO THE STUDY OF THE ETIOLOGY AND PATHOGENESIS OF RICKETS.—Antonio Iovane and Salvatore Forte (*La Pediatria*) have carried out experiments on animals with a view to finding out some of the etiological factors in rickets. Believing that intestinal autointoxication was one of the principal causes of the changes in the bones, they injected into animals watery and alcoholic extracts of the feces of babies suffering from rickets, dyspepsia and gastroenteritis, and produced in them disturbances of nutrition that seem to be identical with those found in rickets. The bony alterations were in outward appearance identical with those of rachitic children. The epiphyses were increased in size, and the long bones showed the same curvatures, the animals wobbling in their walk and the stomach hanging down to the ground. There was a marked softening in all the bones, the cartilage was thickened, and cartilage cells were found infiltrating the spongy bone. All the other histological lesions greatly resembled those in rachitic children. The amount of lime salts in the bones was diminished. The authors believe that one of the principal causes of rachitis is the absorption of the products of bad digestion. While the condition is not solely due to this cause and may result from several factors, this is an important one in producing it. They believe that the process is a sort of arrest of function in the forces which produce the transformation of materials into bone substance.—*Medical Record.*

THE PROGNOSIS IN RHEUMATISM IN CHILDREN.—The situation may be stated briefly as follows: The immediate danger to life is not great; still, 1 or 2 per cent. succumb either to heart failure from endo- and pericarditis or to exhaustion from chorea. Hospital cases give a worse prognosis than the milder types that visit the dispensary. Baginsky had a mortality of 10 per cent. in a fairly large series, but representing, naturally, the most unfavorable forms of this disease. As to recurrence, the prognosis is not at all good; many of my cases returned with relapses, and no doubt many more subsequently turned up elsewhere. In the majority of recurrences we find a recrudescence of the cardiac lesion, but some children are more fortunate in suffering again and again from mild attacks of rheumatism with little or no endocardial involvement, which last and the intensity of the articular or muscular pains stand, as already stated, in no sort of relation to each other; every return and even visit of the child warrants a careful re-examination of the heart. Not until puberty can we notice any tendency of the cardiac condition to become practically stationary. We cannot, therefore, ever commit ourselves to a favorable prognosis before the fifteenth or even twentieth year: whereas, in adults, we can often gauge our patient's outlook fairly accurately for ten or even twenty years ahead.

To put it concisely, rheumatism in children is a most serious affection, the more so the younger the patient. The prognosis can never be stated to be good, often must be stated to be bad; still oftener doubtful with

the prospect of permanent impairment of health and shortening of the expectation of life. No disease of children of the school age entails more disability in later life than rheumatism in its various forms; that is the more lamentable, as we are in possession of no prophylactic resources that are worth considering, with the exception of removal to a mild and dry climate, a measure rarely available even in well-to-do families.—*Wachenheim, Archives of Pediatrics, September, 1908.*

DIABETES IN INFANTS AND YOUNG CHILDREN.—Wilcox (*Archives of Pediatrics, September, 1908*), gives an interesting review of this important condition. *Symptoms.*—The symptoms in youth offer us no peculiarities. Attention was drawn to the condition in a great majority of the patients by an increased thirst, usually accompanied by some change in disposition, beginning with fretfulness and disinclination to play or move about. Increase of appetite is likely to be marked only after the successful institution of a proper regime. Emaciation is, of course, marked in those patients that do badly from the start, but in others there may be no loss of weight, and in two that I have been able to observe there was some gain up to the advent of the intercurrent disease which terminated them fatally. The prominent early symptoms in the individual cases that I have collected have been: twice, thirst, pain, and tenderness over the region of the pancreas; once, a general edema and urticaria. The loss of knee-jerks I found mentioned in only one case. The reflexes are often lost or diminished, with the increase and decrease of the sugar in the urine.

In connection with my work at the Manhattan Eye and Ear Hospital, I have been frequently led to a suspicion of this condition in adults by the failure of an apparently healthy wound to heal. So in childhood, one should look carefully for evidences of diabetes in those cases which under the best conditions persist as victims of malassimilation.

The Urine.—The urine varies in amount between 700 and 7,000 c.c. in twenty-four hours, with a specific gravity of 1.020 to 1.040, the extremes in Wegeli's series being 1.008 and 1.070. These low specific gravities are interesting in connection with Hart's report of 50 cases of diabetes mellitus, chiefly in adults, in which the readings were between 1.006 and 1.018. The maximum amount of sugar in twenty-four hours was 1,240 grams, the average being about 4 per cent., and ranging between 6 per cent. and a fraction of 1 per cent. This sugar content fluctuated with the time of day, and with the ingestion of food, being lowest at night, highest about mid-day and again in the early evening.

The presence of albumin was variable. In Wegeli's cases it appeared in thirteen, and in almost all the fatal cases it was found before death, furnishing ground for his belief that its appearance is an indication of a rapidly fatal termination of the disease.

Treatment.—In the treatment of diabetes the aim of the physician is:

(1) To maintain the bodily nutrition at its highest level by general régime and feeding.

(2) To keep the excretion of glucose in the urine as low as possible.

(3) To keep the urine free from acids.

For the proper care of diabetes the following are necessary:

(1) The determination of the type of case with which we are dealing; that is, the inquiry into whether we are to handle simply a carbohydrate incapacity, or also a deficiency in fat oxidation, as shown by acidosis.

(2) The discovery of that particular form of carbohydrate which will be best borne by the patient.

(3) A clear method, preferably graphic, of recording data by which exact information can be had of, and comparison made between, the following points:

(a) The patient's weight.

(b) The amount of urine passed in twenty-four hours, and its specific gravity.

(c) The amount of sugar excretion.

(d) The quantity of the acids present in the urine.

Diet: Carbohydrate.—The discovery of the variety of carbohydrate best suited to the patient should be the first result of the institution of the diet. Semiweekly urinalyses and weights may show increasing carbohydrate tolerance with certain starches, and so indicate which of these is most easily handled.

The starches of oatmeal, potato and milk and such sugar as levulose, which is present in fresh fruit and honey, are sometimes found to have no effect in increasing the sugar excreted.

The patient should be put on a standard diet, suited to his age and condition, and as free as possible from carbohydrate. Then a supplementary diet consisting principally of that carbohydrate found to be best borne, together with the other allowable starches and sugars, should be held in reserve, from which is added more or less according to the varying carbohydrate tolerance shown.

Periods of complete, or nearly complete, abstinence from carbohydrate should be alternated with periods allowing a fair amount of starch and sugar, the latter best coming at such time as the sugar is low in the urine.

The most reliable sign that more sugar is needed is the presence of diacetic acid, as shown by the ferric chlorid reaction. When the reaction becomes marked, carbohydrate should be administered freely or coma is apt to appear.

Because of the monotony of the diet, the resources of the physician will be sorely taxed in providing enough legitimate variety to keep the older children taking their food well. I shall not attempt to go into the food lists, with their varying carbohydrate contents and caloric values, as this information is easily accessible to all.

THE ABSORPTION OF OINTMENTS.—R. L. Rutton's experiments seem to indicate that lard, simple or benzoinated, and pure goose grease, are the most quickly absorbed of all the substances commonly employed as ointment bases. Petrolatum penetrates poorly unless applied with friction. Lanolin alone is absorbed very slowly, but if mixed with a more fluid material, like olive oil, it enters the skin readily. The addition of a little

oil of cedar wood, considerably increases the rapidity of absorption. The author's experiments were conducted on guinea pigs and white rabbits. In order to get more direct results, various tissue stains in the form of analine dyes, were employed. These were thoroughly mixed with diverse vehicles and applied to the bare skin, the hair having been carefully clipped off. In some instances friction was used, in others the fluid or ointment was simply painted or smeared on. After the lapse of a certain period, varying from fifteen minutes to several hours, the patch was excised under anesthesia. The pieces of tissue were at once blocked, frozen, and cut, the sectioning being done in a direction parallel with the hair shafts, and from below upward, in order to prevent the stain from being carried further into the tissues by the microtome blade. For the same reason the knife was cleansed with ether after each stroke. The sections were immediately placed in a filtered mixture of honey, glycerin, and water, later being mounted and examined in the same media.—*British Medical Journal*.

THE MANAGEMENT OF THE UMBILICAL STUMP—J. A. Harrar, New York (*Bulletin of the Lying-In Hospital of the City of New York*, September, 1907). In a series of nearly 10,000 cases it was found that separation of the cord occurred between the fourth to sixth days in 73 per cent. of the cases; the small granulating core left usually heals over by the tenth day. Various deviations from the normal have been noted; of these, hemorrhage and umbilical hernia are the most important. Late hemorrhages due to constitutional trouble (usually hemorrhagic disease) after separation are commonly fatal if local measures do not stop the oozing. A hare-lip and figure eight ligature are employed. Internally calcium lactate, adrenalin and gelatin may be administered. Immediately after tying the cord with three-sixteenths-inch cotton tape one-half inch from the skin, a dry sterile gauze dressing is applied and left in place for five days. If, when inspected, the cord is still moist the new sterile dressing is wrung out in 50 per cent. alcohol. The cord is not touched, but handled with spuds (toothpicks wrapped with cotton). If there is excessive granulation a sterile silver stick is used. No dusting powders are used if possible.—*American Journal of Surgery*.

ECZEMA: ITS AETIOLOGY AND TREATMENT.—Zama Feldstein, in the *New York Medical Journal*, contends that eczema is a parasitic disease and that the only thing necessary to produce an eczema, is a congestion of the skin, which might be produced by a constitutional condition or an outside influence. The author further contends that for the production of an eczema, two conditions are at least necessary. Firstly, a predisposition or a special irritability of the skin, and secondly, an exciting influence which brings this irritability into action.

In order to cure an eczema Feldstein states that it is necessary to use a parasiticide sufficiently penetrating to establish contact with the micro-organism responsible, and stimulating enough, to restore the skin to its healthy activity.

The writer sums up the treatment as follows: "1. Destroy micro-organisms. 2. Protect the inflamed surface from further microbic invasion.

3. Regulate the strength of the remedy employed to the tolerance of the patient's skin. 4. Sooth when acute. 5. Stimulate when chronic.

Among the drugs mentioned are, resorcin, sulphur, ichthyol, salicylic acid and creolin. In using these parasitocides the author points out the necessity of regulating the strength of the remedy according to the sensitiveness of the patient's skin and the severity of the disease. Diet, the author contends, has only an indirect influence; when constitutional conditions are present, these should receive consideration.

RALPH BERNSTEIN.

CASE OF SIDEROSIS OF THE RIGHT EYE, CAUSED BY A PIECE OF IRON SCALE WHICH THE X-RAY FAILED TO LOCATE.—The patient, a cabinet maker, 49 years old, while cutting off a bolt, was struck in the right eye by a piece of iron scale. He kept on working, and when he presented himself in the afternoon for treatment, the condition of the right eye was as follows: Shallow cut in outer margin of lower lid; a small perforating wound in inferior, exterior quadrant of cornea; irido-dialysis, and cut on dilatation of the pupil, a small dark opacity in outer lower quadrant of lens was observed. Other media clear, fundus normal, vision 20-20. Patient had no conception of size of piece of iron scale which struck him and two X-ray examinations proved negative. It was then assumed that a larger piece had struck the eyeball and dropped off, and that what at first appeared to be a foreign body in the lens was nothing more than partial traumatic cataract. After appropriate treatment, patient was discharged, three weeks after the injury, with normal vision.

About four months later he presented himself again, for reading glasses, and the condition of the right eye was the same. About a year after the injury the entire lens had become cataractous and the iris, naturally gray, had assumed a brown color; it was rust-stained. Four years later a successful extraction, with iridectomy was performed, during the intervening time the patient had several attacks of irido-cyclitis, which were easily controlled by the usual remedies. The heavily rust-stained lens was examined carefully, but no foreign body was found. It was undoubtedly absorbed and deposited again as hydroxide, causing the uveitis.

The eye was perfectly quiet; vision is still improving, and with plus 11.00 D. S. is 1-10. The failure of the X-ray to reveal the piece of iron scale is explained by the fact that in its shortest diameter, it must have been too thin to offer sufficient resistance to the ray, and the picture through the larger diameter was easily obliterated by diffusion of the ray from the cranial bones.—Henry Mentze, M. D., *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

DIONIN IN INTERSTITIAL KERATITIS.—A woman, aged 58, was first seen two years previous, when she gave a history of ulceration of the left cornea 15 years before, which got well after a year. Her child then scratched her right eye, and she suffered the same way with it for about the same length of time. The vision was R. E. 20-200; with plus 3.50 axis 90°, 20-50. L. E. 3-200 not improved by lens. Both corneas were covered with nebular opacities. The right pupil dilated in a vertical oval, and the left dilated uniformly. The right

pupillary area showed with the ophthalmoscope, horizontal striae which looked purely capsular, a few deeper opacities also being seen. No vitreous or fundus changes were seen in the right eye, but the vitreous of the left eye contained a large fixed opacity on the nasal side. She was given 3 grains thiosinnamin twice daily for two months; when it was discontinued because her vision had not improved.

Four months later the vision of the right eye was reduced to 20-70, with her glasses. She was now given a 5 per cent. dionin salve, which she used several months without improvement. On her next visit she stated that her right eye had been inflamed and painful for three months, and that she had slept but little on account of pain for three nights.

Very marked corneal interstitial changes were noticed, especially over the lower half, with superficial pebbling, which stained very slightly. Under atropine the pupil was found to dilate irregularly because of posterior synechia. The only treatment prescribed was 5 per cent. dionin salve. The results were striking. The cornea largely regained its luster, was no longer roughened, and the interstitial changes were clearing. The pupil was irregular and contained some exudate.—Melville Black, M. D., *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

A CASE OF RETROBULBAR NEURITIS, A SEQUEL OF IODOFORM INTOXICATION.—Sarafoff, of Vienna, reports a case in which the injection of a 10 per cent. emulsion of iodoform glycerine into a psoas abscess led to serious visual impairment. Altogether 300 grains of the emulsion were injected. Misty vision was first noticed 25 days after the first, four days after the second injection. Vision in each eye then rapidly became worse, the patient being unable to read even the largest print. There were no fundus changes. Improvement set in at the end of three weeks, and at the end of five weeks vision had returned to its original standard. Two similar cases have been reported by de Bries and Moor.

Palermo subjected rabbits and dogs to toxic doses of iodoform. Microscopical examinations of the optic nerves of these animals revealed a proliferation of the nuclei of the connective tissue, especially in the septa, without changes in the nerve fibres themselves. While in some instances only the papillo-macular bundle is affected by the interstitial inflammation, in others the inflammation may reach the nerve head, becoming visible as an intraocular neuritis, which may cause permanent visual impairment. Iodoform, however, primarily affecting the interstitial connective tissue is less dangerous than other medicaments (Felix mas) which directly attacks the nerve fibres.—*Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

PERNICIOUS ANAEMIA AND PREGNANCY.—Findley (Omaha) reports a case of this rather rare disease, and reviews the literature bearing upon the subject. In summarizing his remarks, he says that pregnancy and the puerperium exercise a favorable influence upon the development of pernicious anaemia. Women are more liable to pernicious anaemia during pregnancy and the puerperium than at other times. There is no satisfactory explanation for the effect of pregnancy upon the development of pernicious anaemia. Frequent childbearing, prolonged lactation, overwork and mal-

nutrition are predisposing factors. There is a remarkable uniformity in the clinical phenomena and post-mortem findings. These consist in high grade anæmia of all tissues and organs, fatty degeneration of the viscera, serous effusion in serous cavities. The onset of the anæmia is usually in the latter half of pregnancy. The diagnosis is not possible at the onset, but is later determined by exclusion of other possible forms of anæmia, by blood examination, fatal termination, and finally by post-mortem examination. The child usually dies in utero or shortly after birth and has never been observed to show pernicious anæmia. Spontaneous interruption of pregnancy is the rule. In all well established cases the disease has proven fatal.—*Amer. Jr. Obs.*, Vol. 58, 51.

THEODORE J. GRAMM, M. D.

IMMEDIATE OR DEFERRED OPERATION FOR ECTOPIC PREGNANCY.—The most important subject engaging the attention of the American Gynecological Society at its recent meeting in Philadelphia was a symposium on the question above indicated. The subject received the attention of a number of gynecologists of extensive experience. From the wide range of views expressed, and the many interesting and important facts brought out, the principal result appears to be that our attitude toward the operative treatment of tubal pregnancy should receive a certain modification as regards the necessity for immediate operation when rupture occurs. It seems to be conceded that while the condition of the patient at the time of rupture is indeed grave, and while a number of patients will die in consequence of the hemorrhage and from the attending shock, yet the percentage of such termination is not as great as was formerly believed. It appears that this sudden fatal termination occurs in about five per cent. of cases. In the remaining 95% of cases the question arises as to the best time for operation, and the view seemed to prevail that it is not in the best interests of the patient to perform a hurriedly organized operation with its attendant risks. Likewise it is not well to operate the woman before she has somewhat recovered from the first effects of the shock and hemorrhage. Dr. Robb said that not more than 5% of the victims of ectopic pregnancy die at the time of rupture, whereas after the immediate operation in 1,176 cases in twenty-five clinics, the mortality was eight per cent.—*Amer. Jr. Obs.*, Vol. 58.

THEODORE J. GRAMM, M. D.

POST PARTUM HEMORRHAGE FROM ATONY OF THE UTERUS.—Goth (Klausenburg). The endeavor to avoid intrauterine manipulations in these cases has led to the use of a number of external methods of treatment, such as massage of the uterus, flexing the organ anteriorly and making pressure from behind, et cetera. In all these cases it is a common observation that the uterus is not only relaxed, but it has also descended considerably into the pelvis, so that the os may appear at the outlet, and the fundus scarcely be felt above. This fact has suggested to the author to replace the uterus by grasping the cervix between the thumb and forefinger, about the region of the internal os, and pressing it high up into the pelvis, at the same time that the uterus is grasped above by the hand upon the abdomen and massaged. The author noticed a rapid contraction of the uterus from this pressure at the internal os with replacement of

the organ into its proper location. Since this replacement was also successful in some cases where the uterus was not markedly displaced downwards, he believes the good effect observable is largely due to reflex nervous stimuli excited by the pressure at the internal os and by the upward traction upon the vaginal walls.—*Zentralbl. f. Gyn.*, 1908, 473.

THEODORE J. GRAMM, M. D.

THE ADMINISTRATION OF ANAESTHETICS.—In the president's address at the recent meeting of the American Gynecological Society, Dr. J. M. Baldy makes an earnest plea for radical reform of the customary practice in administering anæsthetics. He points out the dangers and risks attending "the long established and time honored custom of having the anæsthetic administered in hospitals by the resident physicians, in private homes by any available doctor in the neighborhood," and says this custom is to be condemned. The patient who is able and ready to pay any amount of money for the services of the most skillful surgeon, often has his life and those of his family unknowingly put at the mercy of an incompetent anæsthetist, under the old method. One has only to recall his own experience and feelings during the first few weeks of his apprenticeship at anæsthesia to realize how thoroughly at the mercy of chance was the survival of the patient and how utterly helpless he would have been had anything gone wrong. Dr. Baldy reiterates the oft repeated suggestion of having a salaried anæsthetist at every hospital, and he also recounts the advantages of having a woman fill this position.—*Amer. Jr. Obs.*, Vol. 5831.

THEODORE J. GRAMM, M. D.

INDICATIONS FOR CAESARIAN SECTION.—Hirst believes that pubiotomy, symphysectomy, and all the other substitutes for Cæsarian section will be little heard of in the future. The only valid argument in their favor at present is that they are safer than Cæsarian section after a labor of some duration in which there have been vaginal examinations or intrauterine manipulations. No one would prefer these operations to Cæsarian section if the two operations had the same mortality. But statistics do not support this contention. The best operative and aseptic technique enables one to resort to Cæsarin section with impunity in spite of hours of labor pains and even with an infected lower birth canal. Induction of labor within the last four weeks of gestation is preferable to Cæsarian section at term in cases of moderate contraction of the pelvis, in which a child of about five pounds in weight with head diameters on the average 1 cm. less than normal, and with a compressible cranium can easily pass through the birth canal, or can be safely assisted through.—*Amer. Jr. Obs.*, Vol. 58, 128.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

KALI PHOSPHORICUM.—Dr. George Royal presents a few groups of *Kali phos.* symptoms which have been verified and which shows some of the conditions for which it proves useful.

Case I. *Amenorrhœa.* The *Kali phos.* symptoms were "constant, dull headache, yet drowsy all day," cross and snappish (irritable); "cries easily (depressed);" "so fidgety she could not control herself." *Kali phos.* 3x, four times daily, cured in three months.

Case II. *Nervous dyspepsia.* "Nausea soon after eating, accompanied by marked drowsiness." "Eruptions putrid both to taste and smell." "Eruptions relieved by nausea." "Gnawing pains with fulness in the afternoon."

W. T. Laird made this comparison between the dyspepsia of *Kali phos.* and *Anacardium*:

"The *Kali phos.* patient is more decidedly neurasthenic than the other; and the relapses, which are frequent in both, are mostly due to dietetic errors in the *Anacardium* cases, and to excitement or worry in the *Kali phos.* cases."

Case III. *Nervous exhaustion.* H. F. Dodge reports the case of a worn and nervous mother made so weak by a sickly baby. The indications are: "Dull, heavy ache in the occiput." "Drowsy but yet restless." "Foul breath." "A brown coated tongue."

Case IV. *Nervousness* due to sexual excitement. Dr. J. C. Nottingham gives the following group: "Excessive excitement whether suppressed or indulged;" "aching in the sacrum;" "sleeplessness;" "dull aching pain in occiput and back;" "natural irritability;" "great despondency;" "frequent micturition;" the quantity being large and the amount of phosphates increased.

Case V. *Typhoid Fever.* Many cases have been reported claiming help from *Kali phos.* in typhoid fever, but the symptoms for which it was given were not clearly set out.

One, however, gives the following, all found in the provings: "Mental confusion for a few days;" "pain in the forehead, at first sharp and transient, then dull and constant;" "foul breath;" "brown-coated tongue;" "chilliness;" "weak;" "tired feeling;" "distention of abdomen and offensive, dark-yellow pasty stools."—*The Homœopathic Recorder.*

EQUISETUM HYEMALE IN PAINFUL URINATION.—Kopp regards this remedy as one of the most reliable for painful urination when the symptoms are frequent and severe urging to urinate associated with violent pain, especially if the pain is felt immediately after the urine is passed. It is indicated even when the urine is albuminous.—*Homœopathic World*, September 1, 1908.

KALI HYPOPHOS IN TEA POISONING.—The dose recommended by Kopp is one grain three times daily. The indications are constipation, painful flatulence, bilious vomiting, shooting pains about the chest and scapulæ, aversion to food, great despondency, a feeling of tenderness in the hypochondrium, want of appetite with a great aversion to food, and palpitation of the heart.—*Ibid.*

LACHNANTHES TINCTORIA: SENSATIONS.—Indicated for sensations as if the hair were standing on end, the scalp being sore; sensation of enlargement of the vertex, and as if it were driven upwards; a sensation as if the eye teeth and upper incisors had broken loose, with a sensation of soreness aggravated on closing the teeth and on touching them with the tongue; a sensation coming on suddenly of qualmishness in the stomach; a sensation of heat through the abdomen; a sensation as if the bowels would be moved; sensation of heat in the region of the heart, which keeps coming and going; a sensation of pain and stiffness in the neck, extending over the whole of the head as far down as the nose.—*Ibid.*

NASAL SYMPTOMS OF LITHIUM CARBONICUM.—This drug causes an obstruction of the nose. There is a constant discharge of mucus in the evening, and a dropping from the nose whilst out in the open air. The nose, more especially on the right side, is swollen, dry and red, and sore inside, whilst shiny crusts form on it. Frequent and copious urination at night keeping the patient awake, is an accompanying symptom.—*Ibid.*

LYCOPUS VIRGINICA IN DIARRHOEA.—We are so accustomed to associating the use of lycopus with heart affections that the suggestion by Kopp that it may be employed in diarrhoea strikes us as a novelty. His indications are stools of a slimy, peculiarly shiny, a dark brown or yellowish brown color, offensive and evacuated in gushes.—*Ibid.*

URANIUM NITRATE IN DIABETES.—The indications are canine hunger, very distressing thirst, constipation, red angry looking tongue and insomnia. The best preparation is the 2x trituration.—*Ibid.*

OENANTHE CROCATI IN CONVULSIONS.—Violent convulsions accompanied with vertigo, nausea, vomiting, madness, insensibility, dilatation of the pupils, turning up of the eyelids, contractions of the lower jaws and limbs, tremblings, tetanus and trismus. Also in cases in which are present biting of the tongue, syncope (death like), and coma.—*Ibid.* (The majority, if indeed not all of the references to the use of *Oenanthe crocata* in convulsions as found in our literature refer to its applicability to convulsions of the epileptiform type. The symptoms above epitomized by Dr. Kopp are so strongly indicative of the

hysteroid, that our thoughts should be turned to its administration of that type as well. Personally, we have never seen the slightest result from its administration in idiopathic epilepsy, although we have applied it in many cases. We feel that the favorable results reported by others are to be explained by mistaken diagnoses or care in the hygienic management of the patients.—Eds.)

CERIUM OXALATE IN THE VOMITING OF PREGNANCY.—Kopp gives no special indications for this remedy other than obstinacy and “when all others fail.” We have tried this remedy in grain doses and have thought we saw good results, and then again we have given it as well as other remedies without the slightest benefit. Our own feeling as to the efficiency of medicines in the vomiting of pregnancy of severe type is not hopeful. Time and general management of the patient effect cures. Still a pessimistic frame of mind is never conducive to therapeutic success, for without enthusiasm we feel ourselves beaten at the start, and thus do not put forth our best efforts.

PHYTOLACCA OETANDRA IN GLANDULAR ENLARGEMENTS.—Glandular enlargements in the axillæ and hardness of the glands on the *right* side of the neck. It has a power (similar to that of *phytolacca decandra*) of causing a loss of the adipose tissue of the body.—*Ibid.*

PROMINENT SYMPTOMS OF VERATRUM VIRIDE.—Kopp emphasizes the importance of the following symptoms of *veratrum viride*: Headache proceeding from the nape of the neck; active cerebral congestion; a feeling as if the tongue was scalded; violent nausea and vomiting, the smallest quantity of food or drink being immediately rejected; convulsions before, during and after labor; constant distress of a burning nature in the cardiac region; chilliness, accompanied with nausea; full, frequent and hard pulse in fevers.—*Ibid.*

AESCULUS GLABRA IN HAEMORRHOIDAL AFFECTIONS.—The stools are hard and knotty, and the tumors are of a dark purple color, and there is great weakness and lameness in the back.—*Ibid.*

BAPTISIA TINCTORIA IN TYPHOID FEVER.—Kopp believes that *baptisia* is a prophylactic remedy so far as typhoid fever is concerned, and as far as such a thing is possible, it is a specific in that disease. It is indicated by drowsiness and stupefaction, and when there is a wild kind of a feeling with that peculiar headache which precedes or persists during typhoid; deafness or dullness of hearing; the tongue is coated white with the red papillæ protuberant, followed by a yellow brown coating in the centre, the edges being red and shiny. There is also a great dryness of the mouth and tongue. Other symptoms are distention of the abdomen; sharp shooting pains in the bowels with rumbling and a feeling as if relief could be obtained by vomiting; congestion of the liver during typhoid; dull pain of a heavy character in the lumbar region; hot pungent and moist skin; increase of temperature and of the pulsations of the heart; uncomfortable heat of the whole body; weak and tremulous feeling or an indescribable sick feeling all over, accompanied with great languour; sensation all over

the body as if beaten or bruised; great prostration, which is general; feeling as if bed sores were about to appear about the hips.—*Ibid.*

KALI BROMIDUM DURING DENTITION.—Difficult dentition of children especially when the mouth is hot and dry. It acts by restoring the salivary secretion, and consequently the agitation, vomiting, carpedal involuntary motion, and diarrhoea disappear.—*Ibid.*

ERECTHITES HIERACEFOLIA IN HAEMORRHAGES.—In epistaxis when the blood is of a bright red color; bleeding of the gums with looseness of the teeth; vomiting of bloody mucus or pure blood; hæmorrhage from the bowels or from hæmorrhoidal veins; discharges of almost pure blood in dysentery; mucous stools, streaked with blood, and accompanied with much straining; profuse menstruation, profuse metrorrhagia or menorrhagia, when the blood is of a bright red color, urine painful, scalding, bloody and very scanty, urine dark, scanty and mixed with blood; pure blood oozes from the urethra when urinating; cough with bloody expectoration of a muco-purulent character.—*Ibid.*

LIGUSTRUM VULGARE, A POSSIBLE REMEDY FOR HAY FEVER.—The editor of the *Homoëopathic World* suggests a proving of *ligustrum vulgare*, the common *privet* based upon the following clipping from the *Westminster Gazette* of July 7th:

"This is the season of hay-fever in England. At Shanghai, we learn from the last mail advices that a number of persons have been suffering severely from asthma, believed to be caused by *privet*. There has been much correspondence in the *North China Herald* on the subject. One letter says:

"I have to-day seen several patients suffering severely from asthma, believed to be caused by *privet*, one of them, a lady, so ill that a consultation was considered necessary. . . . I have no doubt whatever that the *privet* now in bloom causes, in some people, what is known as *privet-cough*, asthma, or a form of hay-fever. It is not always possible to trace the connexion in a particular case, as in that of a lady friend of mine, a new-comer, quite well, and doubtful as to any relation between *privet* and these complaints. It was suggested that she might, in the cause of science, put her doubt to the test of sniffing then and there a *privet* bush in full bloom. By next morning she was an uncomfortable believer in *privet-cough*."

DRUG PHYSIOGNOMY OF GRAPHITES.—Vannier believes strongly in the importance of condensing rather than of expanding the *materia medica* and the pathogenesis of each drug should make a picture which may be readily recognized at the bedside, and that our *materia medica* should be presented as a thing of life, not dead, but living. The following presentation of the symptomatology of *Graphites* represents his ideas put into practical form:

Characteristic: Particularly inclined to obesity, with habitual constipation, and eruptions with characteristic gluey exudation. The patient is fat, chilly, constipated.

Aggravation: At night; during and after menstruation.

Amelioration: In the dark; from wrapping up warmly.

Modalities:

Face: Pale, waxy, puffy. Humid eczema about the mouth and on the chin. The individual is chubby, obese. The graphites child is big and fat, even if poorly nourished (calc.).

Nervous System:

Mental Symptoms. Great timidity and hesitancy. Cannot come to a decision on any matter (puls.).

No desire for work. Music causes weeping (nat. c., sab.).

Sad, despairing. Anguish over a trifle.

Restless, unrefreshing sleep; disquieting, horrible dreams. Drowsy by day; cannot fall asleep at night.

Conscient cataleptic states (cann. l.), unable to move or speak.

Pains:

In general: Worse at night; during and after menstruation.

In Particular:

Head: cephalalgia in the A. M. on waking, oftener one-sided, with tendency to vomiting. Sensation of spider-web on the forehead (bary., bov., brom., ran. scel.). One-sided rheumatic pains extending into teeth and nape. Scalp hot, burning, at the vertex (calc. sulf.; cold; sep. var. a.).

Eyes: ophthalmia. Red and swollen lids. Eczema of the lids, fissures; margins covered with crusts and scales (staph., sulf.). Styes (puls.; graphites in the chronic).

Ears: dryness. Crackings in, when chewing. Eruptions and humidity behind the ears; fissures. Hears better in a noisy place (nit. ac.).

Limbs: pains in back and limbs. The left arm and hand seem asleep. Edema of the lower limbs. Stiffness and contractures of the toes.

Digestive Apparatus:

Putrid odor from the mouth. The breath smells urinous.

Aversion to meat and sweets, to warm drinks.

Nausea and vomiting after each meal. Gastric pressure, burning; constrictive pain. Frequent eructation but difficult, with great distension of the abdomen, which is full and hard; must loosen the clothing. Inguinal region sensitive, swollen.

Constipation. Stools large (Sulf.) difficult, hard; in small pieces joined by strings of mucus. Mucus often escapes after the stool.

Diarrhea. Brown, liquid, mixed with undigested particles, very fetid; often caused by the suppression of an eruption (psor.).

Hemorrhoids. Sharp, sticking pains. Burning on passage of a stool; sometimes the stool is covered with blood, or blood passes after the stool. Great pain after stool, with painful sensitiveness on cleansing (fissura ani.). Itching about the anus, especially at night (Eczema.)

Respiratory Tract. Nose: painful internally. Cannot bear the odor of flowers. The alæ are fissured and crusty.

Menstrual epistaxis.

Thoracic constriction; attacks of suffocation waking from sleep; must eat something.

Circulatory Apparatus: Cardiac weakness, with dropsical tendencies. Hemorrhagic tendency, the blood pale and poor.

Varices and varicose ulcers.

Urinary Apparatus: Urine turbid, with sediment.

Genital Apparatus. Male: Sexual debility. Aversion to coitus. No ejaculation.

Herpetic eruptions. No sensation during coitus.

Female: Menses infrequent, retarded, pale; retarded from getting the feet wet (puls.), with much weakness and depression (alumina, carb. ac. cocc.), sometimes replaced by a leucorrhœa.

During the period: Hoarseness, coryza, cough, sweat.

Malaise in the A. M., with gastric troubles, dyspepsia with bruised pains in the epigastrium.

Leucorrhœa stringy, whitish; abundant before and after the period (sepia before; kreos. after); more abundant in the morning on rising from bed, with great weakness; it excoriates the thighs. Vegetations.

Mammæ large and hard. Nipples painful, rhagadic.

Aversion to coitus.

Skin:

Humid eruptions, at first papular, vesicular or even pustular; secondarily scaly and crusty, from beneath which, on scratching, there exudes a thick honey-like fluid. Unhealthy skin; every little wound suppurates (hep.). Old scars open again.

Eczema aggravated by heat; itching worse at night and from washing; the exudation is increased by scratching. Persistent dryness of affected parts. Eruptions on face, head. Scalp eruptions emitting a fetid odor; loss of hair; eruptions behind the ears during dentition (calc.), on the eyelids or genital organs, between the thighs, fingers, toes, in flexures.

Cracks and fissures in nipples at the finger tips (cars.); commissures of the lips, about the anus, between the toes (Petrol.), with moisture and exudation.

Deformities of the nails, breaking easily, thick, deformed; they fall off in pieces (*ant. c.*), are painful, sensitive as if ulcerated; ingrowing nails (*sil, hep., sulph.*).

Erysipelas of the face, phlegmonous in type, commencing on the right side and going to the left (after the application of tincture of iodine).

Graphites eliminates the tendency to relapses.

Sweat:

Fetid foot-sweat (less malodorous than silica).

Comparisons: *Puls., calc., sep., sulph., fluor. ac.* It is antidoted by *nux, acon., ars.*, and is complemented by *caust., hep. lycopodium.*—*North American Journal of Homœopathy*, September, 1908.

HOMŒOPATHIC TREATMENT OF CANCER—A paper bearing the above title is apt to "jar" upon one's sense of propriety until he finds that it is the author's intention to write of "the treatment of cancer on homœopathic lines by the homœopathic physician," and not on "the homœopathic cure of cancer." Viewed from any standpoint the medicinal treatment of cancer does not give us much encouragement. There is no reason whatever, why

we should not expect to do as much by internal medication as any other school of medicine, and we need not make ourselves ridiculous until we assume a charlatan-like attitude and claim to cure the impossible. Of course, radical treatment by surgical removal is assumed to be the proper treatment when such is possible. We all sooner or later observe inoperable cases, and it is then that medicinal treatment only is possible.

Cancer of the Breast.—Burwood recommends *hydrastis* 1x, two or three drops four times daily, and a local application of equal parts of *hydrastis* and glycerin applied by being painted on with a camel's hair brush and covered with aseptic wool. Applications should not be rubbed in. *Conium maculatum* is used when with the swelling there are pain and the absence of redness. The author gives three drops of the 3x four times daily. *Conium ointment B. P.*, locally is most soothing.

Arsenicum album when the pain is of an agonizing burning character. The 3x is used at first; later the fifth centesimal. This remedy is especially indicated when there has been at any time eczema of the nipple and areola. Its action on the blood itself, the heart, and the stomach, makes it a most excellent "pick-me-up." If the pains are of a stabbing character, then *spigelia* 3x is given, but cautiously, as medicinal aggravation may be set up by this medicine.

Mercurius corrosivus is to be used when ulceration starts in, using the 3x internally, and 1:3,000 locally. Some remarkable results may be obtained by this treatment.

Some patients suffer more pain in the breast at the menstrual period, and at such times, *bryonia* 3x is often a panacea. Aconite in half-drop doses of the tincture has frequently relieved the restlessness and produced sleep.

Mental distress and anxiety in family matters will often produce disastrous results in the organ affected. The author has in such cases seen the quiescent tumor aroused to activity, and pain after some shock or domestic trouble, and in these cases, frequently repeated doses of *ignatia* 1x have been the greatest comfort to the patient. Remedies other than those above mentioned are *calcareo*, *graphites*, *phytolacca* and *silicea*.

Cancer of the Stomach.—*Arsenic* 3x is well to the front for the burning pain, vomiting and emaciation. *Kali bichromicum* 5 runs in very closely, especially if there is a tendency to constipation and a feeling of nausea when moving about. For the vomiting, *creosote* 3 is of more benefit than *ippecac* or *antimonium crudum*, though if there be coffee ground vomitus, *phosphorus* 5 will be useful. When the patient finds relief from taking food, *hydrastis* 1x and *lycopodium* 5 are useful, the former more so if constipation is present, and the latter if there is much distention of the intestines and a sandy deposit in the urine, together with a mapped appearance of the tongue. *Lachesis* 5, too, is indicated by a gnawing pressure, made better by eating, but coming on again in a few hours. The emptier the stomach, the more violent the pain. If acidity be a prominent symptom, *pulsatilla* 1x is an excellent remedy, especially if the thought and odor of food produces disgust and aversion to eating. In several cases where *pulsatilla* seemed to be called for and failed, *hydrochloric acid* 1x, three to five drops in wineglassful of cold water, has often been very useful when acidity is the marked symptom.

Malignant Disease of the Liver.—Burwood usually commences his treatment of cases of malignant disease of the liver with *nux vomica* 3x and *arsenicum* 3x where alcohol is responsible. Arsenic is very plainly indicated if there is a sense of burning in the liver and accompanied by great weakness and emaciation. When jaundice is present, whether from pressure or catarrh, *chelidonium* 1x has given better results than anything else. If there is a history of gall stones, Burwood prescribes *cholesterin* 3x, two grains every night at bed time. If with the jaundice there are pneumonia symptoms, *phosphorus* has an excellent effect on both liver and lungs. *Mercurius sol.* 3x is a reliable remedy, especially if there is any syphilitic history.

Cancer of the Uterus.—In the beginning the author prescribes *belladonna* 1x, which he continues for some weeks, as there is almost always a sense of congestion or fulness, throbbing, bearing down with engorgement of the glands in the neighborhood, and backache with or without hæmorrhagic discharge. When there is much pain or induration involving the ovaries as well as the uterus, *conium* 1x is a very reliable medicine; the patient always finds it soothing or comforting. *Graphites* 5 and *hydrastis* 1x are both most excellent remedies, the former especially when there is aggravation of pain just before or at the period with swelling of the lymphatics, and the neck of the uterus hard and swollen with cauliflower excrescences; the latter (*hydrastis*) if there is constipation and other digestive troubles. *Chamomilla* 3x must not be lost sight of, as it eases pain when other medicines fail. In cases developing at the climacteric, when pressure is intolerable and the pain chiefly located in the left side, running down the course of the nerves, *lachesis* 5 is the remedy. For burning pain in the uterus, accompanied by acrid discharge, light or colored or disagreeable smelling, *arsenicum album* 3x and *carbo veg.* 5 have done good service, while *kreasote* 3 internally and a hot douche of the same drug in proportion of 1:100 as a vaginal injection have been a great comfort. When the cervix is much ulcerated, *mercurius cor.* 3x, and gentle but thorough warm douching for some minutes with chloride 1:3000 answer well. For the hæmorrhage which is sometimes alarming, *sabina* and *secale* have not always been satisfactory; better results have been obtained from *crocus* 3x and *hamamelis* 1x.

Cancer of the Bladder.—The author has treated but two cases of cancer of the bladder, both of which were in females. Both patients obtained more relief from *thuja* 1x than anything else, although *arsenicum* 3x and *conium* 1x were frequently required as indications arose, but when the urine became ammoniacal, *chimaphila* 1x was helpful and *terebene* 1x when hæmaturia was present.

In malignant disease of the glands in the neck, *cistus canadensis* 1x is the most efficient remedy, and in a measure holds the mischief in check.

When sleep has been disturbed, the author has given *hyoscyamus* 1x or five drops to ten drops of nepenthe.—*British Homœopathic Review*, September, 1908.

STRYCHNIA PHOSPHORICA.—Royal has made a proving of this drug upon 11 students of the Iowa State University Homœopathic School. This item and those succeeding it represent the results of his observations. Strychnia

phosphorica seems to act through the cerebro-spinal nervous system upon the following tissues and organs:

1. The *muscles* upon which are found the most marked results, give twitching, jerking, lack of co-ordination, trembling, stiffness, cramping, soreness, weakness, and even complete loss of power.

2. The *mind*. Here are most characteristic silliness and uncontrollable desire to laugh. This condition was followed by not only a disinclination, but an inability to use the brain.

3. The *circulatory system*. Irregularity of the pulse both as to frequency and force. The frequency varied from 50 to 132. The effect upon the blood pressure is best shown by the tracings of the sphygmograph. The pulse is found to be easily accelerated, going as high as 168 on exercise, the face flushed, the hands cold, with cold clammy sweat over the entire body.

4. *Thermal centres*, where we find again a variation. Under the 30th and 6th, four provers record a subnormal temperature going as low as 97 degrees and as high as 100 degrees, while with the 3rd and 1st, we have a variation from 97.4 to 99.4.—*Medical Century*, September, 1908.

[The use of the sphygmograph for determining curves of high blood pressure is most uncertain excepting in very experienced hands. The opportunities for error are so manifest, that we feel the author should have published his tracings, that the reader might have judged for himself. The variations of temperature likewise do not speak for much, as such variations are not inconsistent with health in some individuals. Recent experiments in England suggest that we have been too hasty in assuming the standard of 98.4° as applicable to all individuals.—Eds.]

MODALITIES OF STRYCHNIA PHOS.—All symptoms are markedly aggravated by motion.

Vertigo aggravated on ascending and descending stairs.

Spasmodic action of muscles aggravated on ascending and descending stairs and rapid motion. All symptoms are relieved by quiet and all are better in the open air. Stiffness and drawing of the muscles better on gentle continued motion.—*Ibid*.

STRYCHNIA PHOS. IN CHOREA.—Irregular twitchings of the hand. Twitching of the facial muscles. Difficult walking. Stumbling, staggering gait. Difficulty in ascending and descending stairs. Speech indistinct on account of constrictions of muscles. Twitchings and jerking of all the muscles of the body. Drawing of muscles, causing flexion of forearm on arm. Unable to write. Decided aggravation from motion.—*Ibid*.

STRYCHNIA PHOSPHORICA IN LOCOMOTORATAxia.—Uncertainty in walking, especially if fast, better if slow. Inco-ordination of all the muscles. Difficulty in ascending and descending stairs, having to support self. Marked vertigo on rising, on going up and down stairs. Pupils dilated, blurring of vision. Slight attacks of nausea, sharp shooting pains in the muscles, aggravated by motion.—*Ibid*.

STRYCHNIA PHOSPHORICA IN PARALYSIS AGITANS.—Aching, drawing pains in the muscles. Tremor of muscles of one side, spreading over

same side or entire body. Spasmodic action of muscles of face and throat. Stiffness and drawing in back as if spine were too short. Flexion of the forearm on arm and leg on thigh. Difficulty on starting to walk. The tremor, jerking, and spasmodic action are all aggravated by motion and not relieved, which symptom relief from motion is characteristic of paralysis agitans. So that it is doubtful if it will be found of much use in paralysis agitans, but it certainly will be useful in senile palsy.—*Ibid.*

[We have serious doubts if there is any remedy that will be of the slightest real benefit in relieving the tremor of paralysis agitans. Hyocyamine, it is true palliates the tremor, but not without exerting some unpleasant physiological effects. On general principles, strychnia phosphorica may be expected to do good by aiding the patient's general constitutional state. That is the most we can expect of any remedy in this disease.—Eds.]

STRYCHNIA PHOSPHORICA IN TETANUS.—Increased tension and stiffness in the muscles of the jaw. Rigidity of the muscles of mastication. Difficulty in opening mouth, muscles of jaw contract involuntarily. Least motion brings on spasmodic condition of muscles and increases rigidity. Soreness, stiffness and drawing in muscles of neck and back.—*Ibid.*

STRYCHNIA PHOSPHORICA IN HYSTERIA.—Uncontrollable desire to laugh at remarks, silly or otherwise. One would laugh and the others would follow. Actions and talk silly. Laughter followed by rigidity of the muscles of deglutition. Jerking and trembling of hands and limbs. Trembling of entire body. Face flushed, pupils dilated, cold sweat.—*Ibid.*

STRYCHNIA PHOSPHORICA IN POST-FEBRILE EXHAUSTION.—In cases of typhoid fever and other febrile disorders, e. g., pneumonic fever, the temperature drops to normal or below that point, but there is a cold, clammy sweat, the pulse becomes irregular, and the face is cold and prostration great; and in pneumonic fever, marked dyspnoea.—*Ibid.*

GENERAL CHARACTERISTICS OF THE SALTS OF ANTIMONY.—Vital depression and blood deterioration, the latter tending to become more liquid than normal. The principal action of the antimony salts is upon the mucous membranes and the skin. Upon the former they produce a low grade of catarrhal inflammation, with profuse secretion of mucus, and upon the skin, a pustular eruption in the case of *antimonium tartaricum*, and induration with *antimonium crudum*.

The catarrhal symptoms of *antimonium tartaricum* are manifested above the diaphragm; and of *antimonium crudum* below the diaphragm.

The depressed vitality associated with what might be called asthenic mucous catarrhs makes the antimony salts adaptable to the diseases attendant upon the extremes of life.—A. L. Monroe, in the *Medical Century*, September, 1908.

GENERAL CHARACTERISTICS OF ANTIMONIUM CRUDUM.—Catarrhal dyspepsia, the entire digestive tract being involved; symptomatically, we find a thick white coating on the tongue; stools consisting of profuse mucus

discharge interspersed with lumps of fecal matter; the beginning of the stool is often constipated, the end diarrhoeaic. This condition may be due to imprudence in diet or to senile changes.—*Ibid.*

ANTIMONIUM CRUDUM IN SKIN AFFECTIONS.—This drug causes a thickening and hardening of the scarf skin with formation of corns or callosities upon the parts subject to friction, as the soles and the palms. There may be a tendency to cracking and fissuring of the skin at the orifices (compare *Natrum muriaticum*, *graphites*, and *nitric acid*) with characteristic thickening and hardening. Mentally the patient, if a child, is irascible and shy of strangers; if adult, sentimentally emotional.—*Ibid.*

GENERAL FEATURES OF ANTIMONIUM TARTARICUM.—Through its action upon the pneumogastric nerve, antimonium tartaricum produces spasmodic vomiting associated with bronchial catarrh, characterized by paralytic symptoms. The drug reminds us on the one hand with its mental torpor and vomiting of *veratrum viride*, and on the other, with its inability to expectorate manifested by *causticum*. This bronchial catarrh gives us a clinical picture on the one hand of the capillary bronchitis of infants, and on the other of senile bronchitis.

The symptoms are sneezing, rattling sounds, loose, but there is no expectoration; it seems as if every cough would raise the phlegm, but none is expectorated. The patient turns blue with every cough. There is mental torpor amounting even to stupor, and the body is bathed in warm sweat. The tongue is coated a thin white down the middle with red raised papillæ, altogether a desperate condition and one bordering on paralysis of the pneumogastric and the consequent suffocation.—*Ibid.*

ANALOGUES OF ANTIMONIUM TARTARICUM.—In suppressed eruptions, *bryonia*.

In bronchitis or pneumonia, *ippecacuanha*, in which the rales are larger, and there are more gagging and retching, clean tongue, clearer brain, and a less desperate condition.

In senile bronchitis, *carbo vegetabilis* and *lycopodium*.

In paralysis of the lungs, *moschus*, which has paralysis of the lungs, mucous rattlings, restlessness, weak pulse and syncope after typhoid fever.

In spasmodic asthma, *arsenicum*.

In asphyxia neonatorum, *lauracerasus*, which has great blueness of the surface, muscular twitchings of the face, and gasping.

Upon the skin, *rhys toxicodendron*, which produces an umbilicated vesicle similar to that of antimonium tartaricum. Both remedies are thus suggested in the treatment of variola. *Rhus* is useful in the earlier stage of the eruption; antimonium tartaricum later when the vesicles become pustules. *Thuja occidentalis* also has the power to produce similar pustules, and is one of the important remedies in variola.—*Ibid.*

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THE ADVANTAGES OF HOSPITAL TREATMENT OF MATERNITY CASES.

BY

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(Read before the Homœopathic Medical Society of the State of Pennsylvania, September, 1908.)

IN a course of lectures delivered by Dr. W. Tyler Smith, at St. Mary's Hospital, London, and published in this country in September, 1858, just fifty years ago, this eminent authority commenced his discourse on puerperal fever with the following statement: "About 3,000 mothers die in childbed annually in England and Wales. This is an average of nearly eight deaths every day from this cause. . . . The fatality from childbed fever is, however, in the present day moderate when compared with the epidemics of former times in which of those attacked positively none recovered. Though it is still little amenable to treatment, there is reason to hope that preventive medicine may hereafter almost, if not entirely eradicate this formidable disease." These were prophetic words before Pasteur and Lister had demonstrated the necessity for the adoption of rational aseptic methods in surgical and obstetrical practice. In another part of this lecture we find the following: "The fiercest outbreaks of this disorder have occurred in lying-in hospitals, or hospitals whose lying-in women are received with surgical and medical cases. . . . On this account many have doubted whether lying-in hospitals are not mischievous rather than otherwise in the present limited state of our knowledge of the means

of preventing puerperal fever. Women confined even in misery and squalor in their own homes are less liable to the disease than patients collected together in hospitals."

After dwelling upon the importance of the removal of these cases from the neighborhood of contagious, epidemic or infectious diseases, and the necessity for physicians to change their clothing and have it exposed to the fumes of chlorine, and the recommendation to inhale dilute fumes of chlorine several times a day and not touch anything connected with any source of danger before attendance upon labor cases, he concludes his lecture as follows: "It is impossible to be too scrupulous in a matter of such moment, and I have known accoucheurs who on entering a lying-in room always wash their hands before making an examination."

In another lecture of this course this author again remarks: "The fingers of the practitioner are evidently a fertile source of contagion. The dangers arising from the attendance of students upon lying-in women when they are dissecting and attending autopsies is exhibited in the most startling form by the statistics of the great Vienna Lying-in Hospital. In this institution in six years, from 1840 to 1846, 22,120 women were delivered. Of these 2,260 died, the mortality being in the enormous ratio of one in every ten. The mortality," says this lecturer, "has since been reduced to one in seventy-four, and the reduction has dated from the time when Dr. Semelweiss enforced the regulation that every student should, before and after each vaginal examination, wash his hands in a solution of chlorate of lime, and also interdicted the students from touching dead bodies when in attendance upon the obstetric service."

In concluding the present course of lectures, he says: "I cannot but look forward to the time when the present mortality from child-bearing will be greatly lessened. It is consolatory to know that every succeeding generation of students and practitioners will come to the work with added means of science and experience until at length no unnecessary mortality shall take place in parturition. Women were ordained to bring forth children in sorrow but certainly not in death."

From such expressions of confidence and faith in the future, scientists receive their inspiration and encouragement, but it was not until 1880 that bacteriology began to be recognized

as one of the most important additions to medical knowledge that has ever been made.

At the time these lectures were delivered it was only as a last resort that patients entered lying-in hospitals for their mortality rate was excessive. It would have been appropriate to have written over the door of entrance, "She who enters here leaves hope behind." But from the triumphs gained from asepsis an appropriate inscription at the present time would read, "She who enters here adds security to hope," for the present day mortality average for lying-in patients is less than one-half of one per cent. from hospital treatment, and in the out-patient service at patients' homes it is slightly in excess of this.

The report of the Rotunda Hospital, in Dublin, which is one of the oldest and best equipped hospitals in Great Britain, shows, according to Dr. Tweedy, that 2,254 patients were cared for in the out-patient department in the year 1906 with a mortality of eleven, or .48% of deaths from all causes, and 1904 patients treated in the hospital building with eight deaths, or .42%.

This report gives .06% advantage in favor of hospital treatment. As regards morbidity a temperature reaching 100°F. or more on two occasions between the second and eighth day meets the standard of the British Medical Association for puerperal infection complicating the lying-in period, and the morbidity according to this standard in the Rotunda Hospital was only 8.43%. The records of the New England Hospital for Women and Children, the oldest institution of the kind in Boston, Mass., show from A. D. 1892 to A. D. 1902 during the evolution of aseptic technic but one death in 1050 cases, and no epidemic from puerperal sepsis in twenty years. Their morbidity, as reported, was less than 8% in septic infection during the past year.

In the attempt to record the benefit to be derived from hospital treatment of maternity cases, we should not only consider the advantages acquired by patients, but also those secured to physicians in attendance. We recognize the fact that the family physician should be the best friend of the maternity patient during the trials of parturition. To meet her requirements there must be no shirking of duty at this time, no lack of efficiency and no loss of interest in her welfare; and, yet, what a sacrifice of time, strength and convenience is required,

and how poor the reward when it is all embraced in the meagre charge made for professional services in such cases!

In the thickly populated sections of our country hospitals are being established in almost all towns of importance. If they are equipped as they should be according to modern ideas they should prove to be a blessing to both physician and patient at the time of the confinement. In order that they may be more frequently utilized for this purpose, physicians should not be obliged to relinquish all charge or care of these patients, even when they belong to the poorest class, provided they conform to the rules necessary for the proper management of these institutions and the best interest of all the patients. With properly qualified nurses and assistants in touch with the case the physician can be notified when parturition is imminent. If unavoidably detained he can feel that the patient will be properly cared for. If assistance is needed it is available, and the security he must feel from the absence of infection in all that comes in contact with his patient is most satisfactory. When the patient leaves the hospital he is still her family physician for he has not ignored his obligations in one of the most important epochs in her life.

The most important modern consideration in the treatment of maternity cases lies in the fact that aseptic requirements are as necessary in obstetric practice as in surgery. To meet these requirements patients must either change the conditions within their home apartments to make them equal to those of the hospital, or they must resort to the hospital for the necessary security from septic infection.

As the proverbial chain "is no stronger than its weakest link," asepsis fails of its purpose if one mistake is made or one precaution omitted in the series during the management of an obstetrical case and it is almost impossible to avoid these omissions and mistakes in patients' homes.

Surgery has its triumphs and obstetrics has been moved to a surgical position in the practice of medicine. The requirements of surgery and obstetrics are almost identical. In each there must be a careful preliminary diagnosis made; the necessity for aseptic prophylaxis and the recognition of the necessity for surgical as well as medical treatment in septic conditions is the same, and when serious illness arises from the neglect of aseptic principles the same morbid influences often lead up to a fatal termination. The bacteria concerned in puerperal infection are

identical with those with which we are familiar as causing wound infection, and puerperal infection must be mostly regarded as wound infection due to the entrance of pathogenic germs into the genital tract, either before, during or soon after labor. If obstetric practice does not keep pace with surgical practice we are not meeting scientific requirements. The fact must be recognized that the approach to the birth canal and its invasion during childbirth requires a technic equal to that observed by the careful abdominal surgeon.

Modern maternity technic is modern surgical technic and to conduct a labor aseptically requires as much, if not more care, than is necessary for an aseptic surgical operation, especially when the labor is prolonged and the patient frequently passes from under the immediate supervision of the physician.

This point is dwelt upon because there are many persons even physicians of good repute, who doubt whether the extreme care now taken in hospitals is needful, or that it pays for the outlay both of time and money. Statistics prove that it does pay and is necessary to save human lives, hence the hospital serves an important purpose as an educational center.

In the home treatment of maternity cases it is always difficult, expensive and in some cases almost impossible, to carry out hospital requirements. When a patient enters a well regulated maternity hospital for her confinement she is first bathed in the tub under the supervision of a competent nurse and receives a hose or shower bath while standing in the tub from a rubber hose attached to the spigot. This final rinsing extends from the shoulders to the feet. The hair about the genitals is clipped. The genitals and thighs are scrubbed, first with soap and water, then with the bi-chloride solution, and again rinsed with the hose shower. A sterile pad is applied to the perineum and vulva and after defecation and urination the cleansing of the vulva is repeated, and these parts are bathed by the nurse before each vaginal examination. The patient is clothed in clean clothes, placed in a clean room in a clean bed and when the end of labor approaches long sterile stockings reaching to the hips are drawn over her feet and legs, and a sterile sheet is folded and placed in front underneath and above the pelvis and thighs as the patient lies upon her left side in bed, so that the opening of the sheet is posterior.

The prophylaxis of puerperal infection should begin early and the means used for the prevention of an infection of puer-

peral wounds should include pelvimitry before the seventh month of gestation, especially in the case of primiparae so that the necessity for premature delivery may be considered.

Hospital treatment of maternity cases should be the rule when a Cæsarean section or premature delivery is required, and the risk of a vaginal extraction of a full term fetus in cases of contracted pelvic outlet should always lead to consultation when the family history or other reasons point to its necessity. It is from wounds of the birth canal during parturition that danger emanates. Cases of placental previa centralis are cases for hospital treatment, when serious flooding has given the warning signal that points to imminent danger, for in these cases Cæsarean section may afford the best chance for recovery.

If Cæsarean section is performed early enough and with aseptic precautions it is the safest of all abdominal operations, but it must be early enough to be uncomplicated and free from the danger following frequent vaginal examinations, lacerations and bruises which are inevitable in the effort to effect delivery in unsuitable cases by forceps extraction, version, etc. Every operator will be pleased with the well-being of a patient after an uncomplicated delivery by Cæsarean section as compared with a difficult vaginal delivery, by forceps and its attendant bruising and laceration of tissue. After the operation for version, cervical section, hebstectomy or pubiotomy as it is more frequently called, we have often to deal with injuries to the cervix, vagina, perineum and sometimes the bladder and ureter, the full import of which is not revealed, except at an autopsy.

Much of the difficulty as well as the danger from parturition arises from a faulty diagnosis of the child's position upon presentation, by the obstetrician in attendance. This can be overcome to a great extent by placing the patient upon a suitable hospital table and in the lithotomy position for the initial examination. The unskillful treatment of occipito-posterior positions and too early interference by forceps delivery may be blamed for much of the morbidity arising after parturition as likewise too tardy resort to this aid. Both may be more readily avoided in hospital treatment when the physician is not influenced by other professional engagements. It is unnecessary to dwell upon facilities afforded the physician and the advantages gained by patients from hospital treatment in cases requiring other obstetric operations. Transverse presentations and all

forms of dystocia, eclampsia, prolapsed cord, uterine hemorrhage and uterine rupture can all be most efficiently treated in the hospital.

For the repair of perineal and cervical lacerations after parturition a clean table, a good light, and a properly adjusted speculum are essential. But none of these are obtained in a parturient bed soiled by perspiration, fecal discharges and other foul material. A tallow candle, a smoky lamp, a low bed, afford poor facilities for this operation. In the home treatment of these cases it has often been a question whether it would not be better to leave the wound open rather than close it under conditions which lead to the formation of pockets for the accumulation of foul matter caused by incorrect coaptation due to poor facilities for operating.

When fever develops after parturition it means septic infection in many instances. If we can exclude an infection through the nipples leading to mastitis we look for sources of pelvic infection most frequently from the vaginal canal through a perineal or cervical tear or an infection at the placental site. When a laceration has provided an open door for the entrance of germs, good treatment requires the patient to be placed on a good table so that we can thoroughly expose and examine all parts of the vaginal canal and cervix and apply that important surgical rule for all such cases which consists in the removal of necrotic tissue and foul discharges and the adoption of measures calculated to secure good drainage, even if it requires the removal of sutures and the exposure of raw surfaces which have been imperfectly adjusted or fail to unite.

In conclusion, an appeal is made for the best facilities possible for childbirth. Facilities which will secure to women decreased mortality and diminished morbidity, so that they may fulfil their mission in the world without invalidism as a sequel to maternity. Obstetrics is one of the most important departments of medical practice, as it is one of the oldest and most honorable, and it should be carefully practiced so that women may get the best diagnostic skill and the best surgical technic during and after labor. Then women will not go to childbed in sorrow, and humility of spirit, or shun maternity as they would a great misfortune, for it is the fulfillment of the noblest aspiration of the sex to become a mother and to be able to rear a child. Greater attention should be given the life of the child in utero, for unnecessary forceps delivery, delay in the second stage from

persistent occipito-posterior position, and unskilled breech extractions cause many more still-births than do contracted pelves alone, which are rare in this country. Abdominal delivery by Cæsarean section is easier and safer than version or the high forceps operation, and delivery with placental previa centralis by abdominal section will save the lives of many children and diminish much maternal suffering.

The training of mothers in the care of infants is another great advantage that may be derived from hospital treatment of maternity cases, and in no way can the prevention of blindness in the beginning of life become more satisfactory than by using the facilities afforded in hospitals for a relay of nurses for those extreme cases, which require constant and uninterrupted attention to the infected organs after birth.

MUSCULAR HYPERTONUS OF THE ERECTOR SPINÆ GROUP. ITS CLINICAL SIGNIFICANCE.

BY

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(Read before the Homœopathic Medical Society of the State of Pennsylvania, September, 1908.)

Mr. Chairman and Fellow Members of the Pennsylvania Homœopathic Medical Society:

I thank you for the honor and privilege I have in presenting a paper before this Society. I know that it does not give the final word upon the subject, but I hope that it may prove to be sufficiently suggestive to merit your critical examination and experiment.

During the past eighteen months I have been confronted by this physical sign repeatedly. I take pleasure in sharing with you some of the perplexities it has furnished me.

In Sartor Resartus, Carlyle has said: "Happy is he who can look through the clothes of a man—the fleshly and woollen, the official, bank-paper and State-paper clothes—into the man himself and discern, it may be in this or the other dread potentate, a more or less defective digestive apparatus, and yet, a venerable, inscrutable mystery in the meanest tinker who sees through eyes."

As if in accord with this profound observation, Prof. Wm. H. Bigler, discussing the utter dependence of a human being

upon the integrity of his central nervous system, closed an interesting lecture in physiology with this suggestive statement: "No Monk or Friar ever lived in greater seclusion than your Ego and mine."

In the endeavor to find or force our way into the mysteries of our fellow-man's sufferings we may well stand astounded before the task when we contemplate that the accuracy of our knowledge must depend upon the integrity of not one, but two, central nervous systems. This is why I have been pleased to think of physical diagnosis as an art made up of many and difficult problems in probabilities, often in possibilities, and rarely or never in certainties. Nevertheless, the task lies before us.

I have been greatly interested in attempting to work out the anatomical and physiological basis for a physical condition which I shall be pleased to call in this paper Arnold's Sign, in deference to the man who first called the attention of the profession to it, and to determine what clinical significance it may have as a physical sign.

Since my attention was first called to it I have found it present by repeated examinations in two cases of epileptiform convulsions, two of arthritis deformans, two of sub-acute spinal meningitis, one of asthma (probably cardiac), two of pulmonary tuberculosis and four of neurasthenia. The most instructive cases have been one epilepsy and two neurasthenias.

If we instruct the patient to lie upon one side with thighs, trunk and head slightly flexed and comfortably relaxed, the posture assumed will favor a complete relaxation of all of the muscles of the erector spinæ group throughout the length of the spinal column.

Standing at the side of the table toward which the patient faces, we place the tips of the fingers of both hands gently but firmly over the interspinous notches of the vertebral column, and draw the fingers slowly and steadily across the course of the muscular fibres.

In musculature of normal tone, as in a healthy child, we encounter only the natural resistance of relaxed muscular bodies, and without any local soreness or tenderness.

More often, however, we may feel one or more muscular bundles, varying in size and tension, which seem to stand apart from the rest of the muscle like tense whip-cords. This sense of resistance, or hypertonus, may be bilateral and co-extensive

with the vertebral column, or it may be unilateral and unequally distributed over local areas.

To what extent may we believe that circulatory disturbances in the internal organs are reflected by the spinal cord in the muscles and superficial tissues of the back?

Arnold believed these contractions of muscle bundles to be essentially vaso-motor phenomena, and there is much to bear out his conclusions.

He differentiates stages of congestion, infiltration, induration hypertrophic and atrophic, according to the acuteness or chronicity of the operating causes.

It occurred to me that great assistance in tracing the mechanism involved might be derived from an anatomical rule which I learned some years ago while a student in the laboratory of that master-student of the human body, Rufus B. Weaver, namely, "a nerve trunk or trunks which supplies a muscle or group of muscles, will supply the skin and fascia over that muscle or muscles, and the same at the points of insertion of that muscle or set of muscles; in addition, the same trunks supply the joint or joints moved by that muscle or muscles."

We know that a given segment of the cord supplying the muscles with motor impulses receives its sensory stimuli over the same posterior primary division that supplies its sympathetic ganglia. It will be well to recall that "all the vaso-motor nerves originate in the cerebro-spinal axis, and leaving the cord by the anterior roots, as fine medulated fibres, proceed to the lateral series of ganglia, where they lose their myeline sheaths before being distributed to their vascular areas."

"The vaso-motor nerves appear chiefly in the roots of the dorsal spinal nerves. The vaso-dilator nerves, on the other hand, originate more particularly from the cranio-cervical and sacral regions." The researches of Langley have revealed a very definite distribution of the vaso-constrictor fibres especially, originating from individual segments of the cord.

If we can conceive of the the so-called central and sympathetic nervous systems as being in reality identical, instead of entirely separate, there is little difficulty in proving a compensatory relationship between the organs supplied from a definite segment of the cord and the erector spinæ muscles overlying that segment.

The limits of this paper will not permit detailed tracing of the embryology of the subject but in it, as well as in the ex-

perimental evidence gained by the researches of Head, of London, there is much to confirm the beliefs that structurally and functionally the two systems are one.

"It is quite important, in the beginning, to obtain a clear general conception of the paths taken by the constrictor fibres from their origin in the spinal cord to their termination, on the one hand, in the vessels of the skin, on the other, in the vessels of the abdominal and pelvic organs."

In discussing Head's investigations of the relation between definite zones of cutaneous hyperalgesia and diseases of the deeper organs, Sahli makes this comment: "Probably the affected organs are also supplied by the same nerves. Thus far no satisfactory anatomic explanation has been able to correlate the localizations of zones of the head to definite diseases."

I believe that an anatomic explanation of this phenomenon is well within the application of Weaver's rule and that Arnold's sign has the same significance as Head's Hyperalgesic Zones of the Skin, because dependent upon the same nervous distribution.

In conclusion, I would offer this sequence to explain the mechanism of muscular hypertonus of the erector spinæ group in diseases of the deeper organs:

In acute affections, visceral engorgement (vaso-dilatation) with increased afferent irritability, would produce a relative nuclear anæmia in the cord (compensatory vaso-constriction of the vessels supplying meninges and cord) with lymphatic exudate into the cord and canal and cutaneous vaso-constriction over the zone supplied by the segments involved. This cutaneous vaso-constriction, if continued, would result in local hyperalgesia and hypertonus of the underlying muscle bundles.

In chronic affections, through reflex fatigue, cutaneous sensibility is diminished, muscular hypertonus results in infiltration and hyperplasia, which in turn gives way to induration and atrophy and consequent relaxation of muscles and ligaments, with malnutrition and partial subluxation of the vertebrae and more or less constant dull aching throughout the area involved.

In a case of subacute neurasthenia under observation over six weeks, which was characterized by dilated pupils, cold extremities, dermatographism, constant backache, increased knee-kicks, arterial hypertension and insomnia, I repeatedly found muscular hypertonus and cutaneous hyperalgesia bilaterally

along the vertebral column, which gradually subsided with a return of arterial tension and knee reflex to normal.

The secondary effects I have observed in one case of epileptiform convulsions of twenty years' duration and in two cases of arthritis deformans.

May we not find in Arnold's sign, a physical sign quite as useful as the one Kernig described?

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SPECIAL ACTION OF SULPHUR.

(Continued.)

BY

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VEGETATIVE SYSTEM.

2. *Secretion and its Disorders.*—*Secretion* is an allied function of *Nutrition*, and any influence disturbing the *secretory metabolism* may bring about quantitative and qualitative alterations of these important fluids. *Secretion* is also a reconstructive and depurative process, a *process of utilization and exclusion*. It has a *mechanical* and a *chemical* bearing. For instance, the *saliva* furnishes one of the digestive ferments (*ptylin*), and also lubricates the oral surfaces and *aids deglutition*; the *serous and synovial fluids* moisten the opposing surfaces and prevent friction during the play of the viscera; and the *amniotic fluid* is both a protective and a nutritive medium. The *liver* also, by its *biliary function* is a gland of external se-

cretion, and of internal secretion, by its *glycogenic function*. Details will be given further on.

So, when we consider that this function consists, not only in the elaboration of certain *permanent and transitory fluids*, but also in the separation and rejection from the system of injurious substances, we can well understand how, any *disorder of the secretory process* can create perversion of the nutritive exchange and equilibrium. The function of *secretion*, moreover, is not only concerned in the separation and elaboration of elements destined to be eliminated, in some form or other, but in the return of certain of the secreted fluids to the circulatory torrent. The actual *theory of Secretion*, seems to imply not so much the fact of a separation by the gland of substances held in solution in the blood, as the idea of the choice operated by the glandular cells from among the many materials presented to them, thus the kidney chooses *urea*. There is not only separation and selection in *secretion*, but more frequently still the creation of new principles. *Mucus* and the ferments, *pepsine* *trypsin*, etc., do not exist in the blood; they are formed by the activity of *the protoplasm of the glandular cells*. It is these facts that essentially characterize *Secretion*. The glandular cells, therefore, are *protoplasmic elements* highly differentiated. They are derived from the superficial epithelia, but are physiologically separated by the acquisition of special properties. We see then how the substances cast off from the system or surrendered to the circulation, are extracted from the blood, or elaborated by the glandular activity. In the first instance, the secretory product is rejected to the exterior, either as a useless or injurious waste, as the *urine*, or is utilized for the accomplishment of certain functions, as the *digestive fluids*. These are called *external secretions*, but when the secreted products must become part of the interior medium, they are known as *internal secretions*; and of them I shall speak at the end of this analysis.

We should, in studying *secretion*, always bear in mind, that contrary to what it happens with the *secreting glands*, there exist in the *excreting organs* a complementary relation, so that if the function of one organ be interfered with, another performs it to a certain extent. Then again, we know that the materials which compose the *excretions* pre-exist in the blood, and are the results of the activities of the nutritive process, and that if retained in the body they will exert a deleterious influence upon the composition of the blood, and create pathological conditions

of grave import, of which *uræmia* is a good example. In fact, inadequate or suppressed *cutaneous or renal function*, will create almost any sort of disease, and with fatal results.

Moreover, the *function and disorders of secretion*, cannot be well understood, without an analysis of the *mechanism* (*anatomical, physiological*), of the *rôle* (chemical, mechanical) of secretions; and of their *classification* (anatomical: glands, mucous and serous membranes;—physiological: utilization, exclusion). In this *analysis* should also be included, the *influence of the circulation* in the act of *secretion*; the *office of the glandular epithelium*; and the *influence of the nervous system*.

The *mechanism of secretion* consists, *anatomically*, of a delicate homogeneous, structureless membrane, on one side of which, in close contact, is a capillary plexus of blood vessels, and on the other side a layer of cells, whose *physiological function*, of course, varies in different situations. *Mucous and serous membranes* are also *secreting organs*, and are formed of the same elements of the *secreting glands*. The glands, however, instead of presenting flat surfaces, are involuted, forming tubules, which may be *simple follicles*, (mucous, uterine, or intestinal); or *compound follicles* (gastric and mammary glands); or *racemose* (salivary glands, and pancreas). The interior of each gland is in communication with the free surface by one or more ducts. For the production of a *secretion* it is necessary that the *plasma of the blood*, the common material, be delivered to the lymph-spaces with which the epithelial cells are in close relation. The *passage of the plasma* across the capillary walls, include processes of diffusion, filtration, and osmosis, combined with the secretory activity of the cells of the capillary wall. The *mucous membranes* are soft and velvety in character, and line the cavity and passages leading to the exterior of the body (*nasal, bronchial, vaginal, urinary, gastro-intestinal*). They consist of a primary basement membrane covered with *epithelial cells*, which in some situations are tessellated, in others, columnar. The *serous membranes* are composed of a thin lining formed by the condensation of connective tissue and covered by a single layer of large, flat, nucleated cells, with irregular margins. Their office is to diminish friction when the viscera they enclose move over one another. The most important are the *pleural, pericardial and peritoneal*. The *synovial membranes*, in and around the joints, resemble *serous*

membranes. Their office is to diminish friction between the opposing surfaces of the bones.

The chief rôle in *secretion* devolves on the glandular cells, and *secretion*, properly so-called, essentially results from the work assigned to the *glandular epithelium*, which selects and imbibes into the interstitial plasma of the gland, itself nourished by the blood, materials to be elaborated, and which it elaborates without the intervention of the nerves. This is the *chemical share* of the process, and then comes the *mechanical act of expulsion*, in which, both, the *circulation* and the *secretory nerves* intervene. The work executed by the protoplasm of the glandular cell, is comparable, in all, to the process of nutritive assimilation of all cellular elements in general, and consists of not—well-known *chemical phenomena*, such as oxydations, hydrations, splittings, fermentations; bearing all on substances borrowed by the secretory element from the interstitial fluids which bathe it, and from the blood which travels through the gland.

What a wonderful *mechanism*, is indeed, that which constantly keeps *cellular elements* enlisted in appropriating for especial purposes, nutritive material from the blood; and equally, if not more interesting, the fact, that each specific cell (*gastric, hepatic, enteric; mucous, serous*, etc.) has the power to select and withdraw from the same source, the materials necessary for their own secretion and no other.

In the unicellular organism, *secretion* is confounded with *nutrition* proper, but, in the specialized secreting cells, it has been wrongly admitted, that *secretion*, in some way or other, is nothing but an *exaggerated nutrition* of the element, *nutrition* where the excess will be utilized for the good of other organic tissues. The *processes of nutrition and secretion* may prove analogous, says Viault, but, in reality, they are not blended and remain simply in juxtaposition; for instance, the *urea* found in the *saliva*, is the result of the nutritive disassimilation of the *salivary cell*, but not the product of the specific secretion of this gland.

We have, then, that the *glandular cells*, by the specific activity of their protoplasm, separate and elaborate the products which characterize each individual secretion; but we must also bear in mind that even the simple filtration of water is under the dependence of the vital activity of the *glandular epithelium*. All *products of secretion* contain a certain amount of *water*, and this water comes from the blood and passes, by *filtration*,

through the walls of the capillaries of the gland. In this act, apparently mechanic, the conditions which intervene and favor the transudation of water into the acini of the gland, are: the increase of *glandular vascularization* and the increase of *blood-pressure in the capillaries*. Thus, when a gland secretes its capillaries dilate and its tissue redden. Interesting to state is the fact, that the blood which issues from the veins of a gland, during its functional activity, is no longer blue, but red, and this is due to the circumstance, that the sanguineous fluid retains partially the character of arterial blood on account of the increased activity of the blood-current through the capillaries. In glands in continued activity, as the kidney, the blood that flows out of them, is always red.

In some glands the *secretory cells* elaborate the material of *secretion* during the intervals of repose; and it is in this manner that are formed the granulations of those *zymogenic substances* which give rise to certain *digestive ferments*. At the secretory act, the glandular cells, intermittently empty their retained contents, but their protoplasm is not extinguished, it remains there with its 2 per cent. of *Sulphur*, to continue the formation of new material. Such is, at least, the mode of secretion of the larger number of glands (*merocrine glands*), but in a few others, for instance the *sebaceous glands*, the glandular cells filled with their secretory products, become detached and die (*seborrhæa, acne punctata, dandriff, scurf*). In this variety the secretion is made by *cellular absorption* and formation of new elements (*holocrine glands*). Epithelial reabsorption and replacement of destroyed cells by new elements, which in turn also pass away, only take place in the *sebaceous* and *lacteal* glands. But *all secretions* are retained in the glands until they receive appropriate stimulus, or the *secreting cells* themselves are influenced by reflex action, *mental emotion*, for instance. We to-day study *secretion* in the cell, and nowhere else.

The *nervous system* exerts a double influence on the *secreting glands*. It acts at the same time on the vessels and on the *glandular cells*. The demonstration was given in 1851. by Ludwig, (*action of the lingual nerve on the submaxillary gland*). According to Violt and Jolyet, from the point of view of mechanical action, the *secretions* are true reflex movements, and almost all the *nerves of sensibility* can play the part of a centripetal centre for a *secretory reflex*, be these *nerves of special sense*, or of *general sensibility*. We know well the in-

fluence of taste, smell and sight upon *salivary secretion*, and the influence of *mental excitation* (remembrance, thought, fear, joy, pain, etc.) upon various secretions (*saliva, tears, sweat, etc.*). This *motor nervous action*, as stated above, acts simultaneously on the vessels of the gland and in the glandular cells. While distinct and independent, the *vaso-dilator* and the *secretory nerves*, do not in the least co-operate, in the normal state, to the accomplishment of this mechanical phase of secretion. Each secretion has its governing centre, situated in a more or less limited space of the *gray nervous axis* (medulla, bulb, protuberance). The existence of *secretory centres* in the *cerebral cortex*, however, has not been clearly demonstrated, and the *ganglia of the sympathetic* do not seem to supply independent secretory centres, but the *sudoral secretion*, teaches the discovery of *glandular nerves proper*, distinct and independent from the *vaso-motor nerves*, glandular nerves which *atropine* paralyzes, and *poli-carpine* excites.

For *salivary and sudoral glands*, as well as for the *lachrymal glands*, the existence of *excito-secretory nerves*, is not doubted to-day by many. According to Bert and Laffont, they also exist for the *mammary gland*; and although we have no experimental proof, there is authoritative admission, that the rest of the glands (*liver, pancreas, kidneys, etc.*) are provided with analogous nerves. Besides these nerves, where excitation provokes secretion, some physiologists accept the presence of others which act on an entirely opposite direction, that is they *arrest secretion*, for which cause they have been called *freno-secretory* or *inhibitory nerves*. They appear as the antagonists of the former, and yet, if the *inhibitory effect* produced by the nervous system on the glands, whether of direct or reflex origin, is manifest and common, then the existence of *special nerves of arrest* is to-day less certain than formerly, when there was not sufficient distinction made between *secretory* and *vaso-motor* or *vaso-dilator actions*. So we may conclude that the *bridling and arresting actions of secretion* are perhaps set to work by the same means as the exciting operations, and that it is the state of the *peripheric machinery* that alone determines the result (excitation or suspension) due to nervous action.

Then again, we must not forget that all glands are very sensitive to *variations in the chemical composition of the blood*, and of late, the influence of the humoral exploits on secretions has been amply demonstrated. These *chemical modifications*,

of course, may be *accidental* or *physiological*. Many toxic and medicinal substances when introduced in the system after developing their characteristic influence are eliminated by the glands, and in this relation we may remark, there is a certain elective power in the glandular cells. This is proven by the classic experiment of C. Bernard, who, after introducing in the veins of an animal a mixture of glucose, ferro-cyanide of potassium, and iodide of potassium, soon after the introduction, found the glucose and ferro-cyanide, in the *urine*, and the iodide in the *saliva*. On the other hand, the *secretory humoral actions* of physiological origin are more plainly seen in the *digestive secretions*. Bayliss and Sterling have discovered that an intravascular injection of an extract obtained by maceration, from the *duodeno-jejunal mucosa*, in a solution of hydrochloric acid (H. Cl.), produces an abundant secretion of *pancreatic juice*. Due to contact with the acid there is formed in the mucosa a special substance called *secretine*, which, when injected into the blood, possesses the power of exciting in a high degree the *pancreatic gland*. Another *secretine*, equally as active, has been obtained by Fleig, by macerating the intestinal mucosa in a solution of soap (*sapocrinine*). The alcoholic extract of this mucosa also contains a *secretine*, known under the name of *ethylocrinine*. All *secretines* act directly on the *pancreas*, and even retain their secretory influence, when injected into the blood of an animal, whose pancreas has been previously separated from its nervous connections. There seem to exist among many glandular organs functional relations which renders them jointly responsible to the process, and these relations appear to be not only nervous, but chemical.

Nothing, however, is so interesting to us as the *elimination* by the secretions of many medicinal substances and *toxic drugs* introduced into the system. The *glandular tissues*, especially those of the *excretory organs*, do not only reject and throw off, the useless products of disassimilation, but those substances carried to the blood as *food*, *remedy* or *poison*. It is chiefly by the *kidneys and skin* that the organism gets rid of all noxious elements, but the *salivary glands*, the *liver*, the *lungs*, the *intestines*, the *stomach*, and even the *mamma*, do not remain dormant in the eliminative process. No one certainly can underestimate the value of knowing the channels through which drugs given in excess, pass out of the system, and the results which their retention or accumulation may occasion. No less can we

fail to appreciate the consequences of a *damaged kidney*, an *obstructed bowel*, and even a *torpid liver*. I have stated elsewhere that SULPHUR, taken two or three times a day, is absorbed from the stomach and bowels, carried by the blood, passes to the skin, and is finally excreted in the form of *sulphides*, not only emitting offensive odors, but tarnishing black, coins and other metallic pieces carried by those who are under its influence. We know how BENZOIC ACID, COPAIBA, CUBEBA, SANTAL are excreted, but it is only of late that infinitesimal particles of remedies have been detected in the *excretions*.

The *functional disorders of secretion* consist chiefly in an increase or diminution of the fluids, but their retention or complete arrest is of greater diagnostic import. No less important is the consideration of *qualitative alterations*, and when the changes are both qualitative and quantitative, as in the *saliva of fever patients*, which becomes acid and diminished, then we have a double reason for a detained study.

In the pathogenesis of SULPHUR we find clear evidences of *increased, diminished and altered secretion*, as it will be seen, later on. And who can deny that an organogenic drug whose presence in the *plasma* is constant, is capable of promoting *glandular activity*, of hindering secretory inhibition, and thus supply the organism, not only with the necessary *digestive ferments* but with an *efficient excretion* of waste products? We know well that any disturbance of the *digestive and excretory processes*, embarrasses assimilation, and brings about *retention of noxious materials*, which become the *pabulum* of bacterial invasion and a source of *auto-infection*. It is the retention of toxins and the absorption of the products of intestinal decomposition and fermentation, that cause those attacks of *vertigo, headache, mental depression, drowsiness, palpitations and circulatory disorders*, in which SULPHUR has repeatedly shown its efficiency as a remedy. Do we not know, likewise, that *indol*, whether the product of *albumin-putrefaction in the intestinal canal*, or the result of *putrid suppuration*, is reabsorbed, oxidized into *indoxyl* in the organism, and finally eliminated by the *urine* under the form of *indoxylsulphate of potassium* ($C^8 H^6 NO SO^3 K$)? When the *innervation of the stomach* is defective, does not the defect involve both the muscles of the organ and its glandular structures? And how about those *uric-acid explosions* with their *mental depressive states* and their *cutaneous localizations*? Arrest of *bile-secretion* and

of *urinary secretion* are other sources of serious troubles effectually under the influence of the indicated remedy.

And now I come to the CLASSIFICATION OF THE SECRETORY AND EXCRETORY FLUIDS, a necessary task for us, if we wish to appreciate correctly the origin and meaning of the different secretions of the body.

CLASSIFICATION.—Some have classified *secretions* according to destination (*external and internal*); some after the anatomical structure (*glandular, mucous, serous*, etc.); others according to activity (*permanent and transitory—continuous and intermittent*), and still others have taken for base the office of the secreted fluids (*utilizable and excrementitious*). Gley has proposed a *physiological division* of the glands, in two groups (*nutritive glands and defensive glands*). We must admit, however, that, in general, there is yet a certain amount of confusion between *secretion and excretion*. *Excretion* means a mechanical act of expulsion, of slow or rapid egress of any glandular product whatever. For certain authorities, it also signifies *excremental secretion*, that is an act of depuration, separating from the blood certain formed principles which are useless; while *secretion proper* elaborates new principles, which do not exist as such in the blood, as *pepsin* and *pancreatin*, which are utilized by the organism and finally retaken by absorption. According to their nature and destiny, then, these authorities divide *secretions*, into: (1) *recrementitious* (*serosities, genital fluids and products of ductless glands*); (2) *secremento-excrementitious* (*mucus, digestive fluids, tears, and cutaneous sebum*); (3) *excrementitious* (*sweat, urine, breath, amniotic and allantoic fluids*). Of course, some of these divisions are somewhat arbitrary, for example, the division into *continued and intermittent secretions* is more apparent than real, for all secretions can be called continuous, with remissions and exaggerations more or less manifest, it is true, but nevertheless constant. Secretory activity coinciding with periodical states of excitation (*digestive secretions*), or non-periodical (*tears, genital secretions*). The *lacteal secretion*, which has been made the type of the *intermittent secretions* is on the contrary fully continuous after it is established. But the *lacteal gland*, like the various organs of reproduction, have periods of atrophy and repose, more or less lasting.

Among the *secretory disorders* recorded under SULF. HUR. the most important are those referable to the *mucous mem-*

branes and skin, but there are enough *gastro-intestinal phenomena* to allow us to infer that the *digestive fluids* are altered in quantity and quality, and the same, more or less, may be said of the *bile* and *urine*. Important is also to consider the *secretory troubles* of *serous origin*. A recent discovery has shown that the majority of glands, independent of the normal secretion they pour out through the *skin* and *mucous membranes*, possess another secretion, which, like the *ductless glands*, they empty it into the blood. It is what is really called an *internal secretion*. The *pancreas*, for instance, besides the *pancreatic juice*, elaborates a product which is directly poured into the blood, to destroy there the sugar in excess (*glycolitic ferment*). Likewise, the *testicle* pours into the blood a product (*testicular juice*) which is a powerful principle of energy. The *internal secretions* of open glands, are analogous to the *secretions of closed glands* (thyroid gland, thymus, pituitary body and supra-renal capsules) but of them I shall speak at the end of this study.

I give now the *symptomatic complex* of *SULPHUR-secretory disorders* in the usual anatomical order, and then I shall pass to analyze the different groups, in order to estimate the adaptability of this drug to disturbances of this class.

PATHOGENESIS.

(1) HEAD (*Scalp*).—*Dryness and itching of the scalp. Hair dry, falling off from a crusty scalp, sore to touch, itching violently. Dry, offensive, scabby, easily bleeding, burning eruption, begins on the back of the head, and behind the ears, with sore pain and cracks, better from scratching. Humid offensive eruption, with thick pus, yellow crusts, itching, bleeding and burning. Seborrhœa, dandruff, scurf. Crusta lactea. Patches of short stumps of hair, surrounded and mixed with scabs, crusts, or with fetid sebaceous matter. Tinea capitis, dry, or fetid and humid, with thick pus, yellow crusts and itching.*

(2) EYES.—*Dryness of the eyes. Dryness of the margin of the lids. Dryness in the inner surface of the lids. Painful dryness of the eyeballs. Dryness with itching and burning, or a sensation of sand in the eye. In the morning, after awaking, painful rubbing dry feeling in the borders of the right eyelid. Ophthalmia-tarsi. Scurf-scabs. Styas. Tarsal tumors. Ulcers of the cornea. Hypopyon. Profuse lachrymation, with or with-*

out photophobia. Lachrymation in the morning, followed by dryness. Much matter in the eye in the morning. Agglutination of the eyes in the morning. Purulent mucus in the eyes. Profuse, thick, yellow discharge from swollen lids. Acid, corrosive, or tenacious discharges, with swelling, burning and smarting. Blenorrhœa of the lachrymal sac. Acute ophthalmoblenorrhœa. Pustular inflammation of the cornea and conjunctiva. Opacities of the vitreous humor. Pannus. Eczematous affections of the lids.

(3) EARS.—Dryness in the ear, with much itching. Bloody, purulent, fetid discharge, with much itching and painfulness on scratching. Dirty, offensive, sometimes sour-smelling pus, flowing from the ears. Catarrhal discharge, every eighth day. Purulent otorrhœa. Otorrhœa scrofulosa, with excoriation and scurfy, humid eruption on and behind the ears.

(4) NOSE (Anterior Space).—Fluent coryza, like water, with or without obstruction. Coryza with chilliness. Profuse catarrhal discharge of burning water. Fluent, burning coryza, out-doors, nose stopped up in-doors. Frequent secretion of a thick, yellow, purulent mucus from the nostrils. Violent obstruction of the nose, with discharge of bloody lumps when blowing the nose. Dryness of the nose, with ulceration and scabs. Chronic stoppage, with constant desire to blow the nose, but little discharge comes. Ozæna. Comedones. (Posterior Space).—Fluent discharge from the nostrils, coming from posterior nares. Accumulation of mucus in posterior nares. Dropping of mucus from posterior nares. Abundant discharge of thick slimy mucus alternating with dryness.

(5) MOUTH.—Dry mouth and tongue, usually with burning heat. Tongue dry, white, cracked. Dry tongue in the morning. Accumulation of saliva in the mouth, sour and bitter. Sanguineous saliva with sweet taste. Ptyalism, from the abuse of mercury. Profuse saliva, with nauseous, distressing taste. Salty, tenacious mucus on the tongue every afternoon. Fetid breath, especially after eating. Taste, sickening, bitter, sweetish, sour like vinegar, saltish, and foul in the morning. All food tastes like straw.

(6) THROAT.—Dryness of the throat, with stitches when swallowing. Great dryness of the fauces and palate. Dryness of the throat as if parched, or with sensation of a lump. Sore throat, with great dryness and burning. Pharyngeal wall looks dry, and there is difficulty in swallowing. Pain during empty

deglutition. Pain when swallowing food. Stoppage of the Eustachian tubes. Sensation in the middle of the œsophagus, as if the food could not go down.

(7) LARYNX AND BRONCHII.—Dryness of the larynx, with rough, hoarse voice, but there is much mucus in the chest. Talking fatigues and excites pain on account of dryness. Rattling in the chest after expectoration. Dry, choking cough; dry and short, with stitches in the chest, or under the scapula. Dry cough, with hoarseness, dryness in the throat and watery coryza. Cough, with much rattling of mucus in trachea and chest. Loose cough, with soreness and pressure in the chest, with expectoration of thick mucus, of greenish lumps of sweet taste, or of bloody pus. Tickling cough, with expectoration of dark blood, or of yellow, greenish, purulent, or milk-white, watery mucus; usually of sourish, sometimes putrid, flat, or saltish taste, or like the offensive discharge of an old catarrh. Pleuritic effusion.

(8) STOMACH.—Waterbrash. Heartburn. Chronic dyspepsia, with acidity, fermentation, and bloatedness of the epigastrium, especially after eating. Dyspepsia, with sour eructations, inclination to vomit, vomiting, burning at the stomach and constipation. Sort of absence of digestion, as if there was a lack of digestive ferments. Eructation tasting like bad eggs, with nausea. Sour eructations and much troublesome acidity in the stomach. Nausea every morning, followed by vomiting of sour fluids. Vomiting of ingesta or bile, in the morning, with tremor of the hand and constipation. Vomiting of mucus, with nausea and retching in the morning. Vomiting of blood and of a blackish, tasteless fluid, with faintness at the approach of the menses.

(9) BOWELS.—Constipation with hemorrhoids. Chronic constipation, with abdominal plethora and deficient secretory power; the stools being always hard and difficult. Chronic constipation, with vertigo, despondency, bad breath, and hemorrhoids. Stools: hard and black, as if burnt; lumpy and mixed with mucus; insufficient, as if something remains to be expelled. Frequent desire to stool, with mucus and tenesmus. After stool tenesmus; or the straining ends with the evacuation. The stool escapes sudden and almost involuntarily, driving out of bed in the early morning. Alternation of constipation and diarrhœa. Painless stools. Fatty diarrhœa.

(10) KIDNEY AND BLADDER.—*Urine scanty, or retained. Frequent micturition. Increased and frequent urine, especially at night. Copious micturition after midnight. Passage of urine in bed. Greasy pellicle on the urine, probably lipolytic. Fetid urine. The urine is red in the evening, and deposits a reddish sediment over night. Uricacidemia. Urine is at times clear, at times saturated with thick sediment. Sometimes the urine is yellow, red, or dark brown. Indicanuria. The urine becomes turbid in a few hours. Is like water and leaves a sediment resembling white flour. Phosphaturia. After hysterical fits, large quantities of colorless urine are passed.*

(11) SKIN.—*Dry, scaly skin. Scurfy eruptions on the skin. Eruption consisting of thick, yellow grayish scurfs, with burning itching. Old herpetic eruptions, itching intensely and burning after scratching. Crusta lactea. Hepatic spots, yellow and brown. Acne punctata. Eczematous rashes. Seborrhœa. Dandruff. Scurfs. Copious sweats, sour smelling. Profuse night sweats. Hyperidrosis. Anidrosis. Sudamina. A bad smell comes from the body. Osnidrosis. Copious morning sweats, setting in after walking. Jaundice. Dropsical swellings. Ulcers, with raised swollen edges; surrounded with pimples, with proud flesh; or fistulous; burning, stinging and tearing, emitting a foul odor. Pus thick, yellow and fetid, or thin and fetid. Special dermatosis.*

THE PROSTITUTE.*

BY

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"THE volumes, both great and small, which have already been written concerning 'the oldest profession in the world,' would fill many libraries." These books are handed about or sought after by those who try to find a place in society for these unfortunate women and by others, to satisfy a morbid vein in their make-up. Though the subject has been used by many to attract vicious readers, there are numerous writers who have chosen this subject with the sole purpose of doing

*By a prostitute the writer means a woman who satisfies the physical side of the sexual desire of man without regard as to whether the passion is associated with admiration and respect, and insists on receiving money in payment for her effort. Also a woman who will cohabit with any man for the pleasure that it gives her.

good,—of pointing out the evils of the practice. Who, however, can name one of these books and say that it did more than satisfy or stimulate unhealthy curiosity? Who can say that the reading of it did him any real good? These books are ineffectual because they are of such a nature that the readers or students feel that they are reading or studying something in relation to other people far removed from themselves, rather than finding facts which impress them with the necessity of forming serious judgments as to whether or not they can afford to allow themselves to be fascinated by those who sell sexual sensations that may result in most deplorable sequel.

There comes a time in the life of every youth when, due to the developing sexual desire and the doings and sayings of his associates, he feels called upon to decide for himself the question of "Prostitution vs. Masturbation." There is nothing more vital to the mental vigor and calm of a man than his sexual manhood and it is in the fear of losing this that he acts on the common misinformation and advice of the day and decides to seek prostitution, or, fearing such results of this as he may know, he secretly indulges in masturbation. Life to the contrary, physiology teaches that there is no such vital question for the unmarried man as "Prostitution vs. Masturbation." Statistics show that there is no degeneration of the sexual apparatus in those who do not cohabit—provided that they do not abuse themselves—due to that functional phenomenon known as the nocturnal emission. With the great majority of men, however, environment has played so forceful a part in their mental and physical development as to eradicate almost absolutely such peace of mind as should be conditioned by an acquaintance with the aforesaid scientific fact, and has forced many unmarried men to believe that there is a question of engaging in one or the other of these two practices.

Marriage,—so far as we are able to see to-day,—is the ideal solution for satisfying those strong physical impulses that exist to insure a continuance of the race. Therefore, the chief effort should be to eradicate those conditions from a man's life that unfit him for a harmonious marriage.

Most men think that the evil of prostitution is the spreading of venereal diseases, a statement perhaps best proved by calling your attention to those communities that have passed laws legalizing prostitution and providing for the medical examination of the profession. There are, however, other evils that

are equally vigorous disturbers which these legislators are either ignorant of or have ignored. The prostitute, in most cases, is not a prostitute by choice. In many instances she is a real womanly woman who has been cast out of formal society, due to her affection for some unmanly man, and now has no other means of subsistence than by selling herself. If we accept for the definition of the word "prostitute" the thoughts that usually rise in our minds when the word is used, we must acknowledge that in the majority of cases, we should apply the word to men, and not to women, for in reality it is the men who are the prostitutes.

The edge of the prostitute's true feminine modesty is blunted by the continued indecency that necessity causes her to practice and in its place, she is forced to acquire artificial attitudes and actions in order that she may still attract. For money, she will do anything with pretended zest. Association with women whose true modesty has been blunted unfits a man for harmonious marriage, for there is a form of modesty peculiar to women—such as one would care to marry,—that is in many ways beyond understanding to the male mind. Nevertheless it exists and is a potent factor of woman's attractiveness,—and it is the preservation of this after marriage that is essential to continued fascination. Inability to appreciate "feminine modesty," which is one of the failings of men, results in the giving many unintended mental blows that condition disgust where before there was ardent admiration. Mediate or immediate association with prostitutes tends to give a man a false idea of feminine personality. As physicians, we are frequently consulted by men about to be married who are in search of honest practical advice. At such a time it might be well to remember and tell them that the only rule a man can follow if he would not offend feminine modesty—a factor essential to continued enchantment—is to be extremely careful about unnecessary exposure of his person in the privacy of the home as well as in public, and that he should arrange that his wife may have some privacy protecting her from him as well as the public. There is no question but that we are all so full of faults that "familiarity breeds contempt." Much that conduces to man's desire for marriage is the bewitching influence of feminine modesty, which if not carefully preserved will result in married life's losing much of its charm, and perhaps becoming obnoxious. Thus, association with public

women whose feminine attributes have degenerated unfits a man's mind for continued harmonious marriage.

If one associates with prostitutes, it is certain that sooner or later he will contract and recontract urethral disorders of one kind or another, the acute macroscopic objective manifestations of which, though more or less easily controlled, condition changes in the urethral wall that may materially impede his ability to perform with satisfaction the sexual act, thus disqualifying him for being a sufficient husband to his wife, for with the majority of women the sexual appetite is no less intense than with men, though it is scarcely ever aroused by any man as is a man's by almost any woman. Unsatisfied sexual desire is the cause of many so-called "nervous ills," so frequently attributed to other causes or accepted (even by physicians) as a vague something peculiar to women. This failure on the part of the physician to appreciate the real condition, arises from the fact, that the patient's environment has been such that she fails to realize the truth, or, is due to her not having been educated so that she may express herself in decent language. Parents and schools should not neglect to teach an adequate vocabulary pertaining to things sexual.

Many profess the opinion that prostitutes are of value to a community, believing that their presence indirectly protects what they choose to call "the innocent maids" of that community. However, it is the contrary only, that is true. If any positive assertion can be made in this connection, it is that "innocent maids" in a community are not only a danger to themselves but a temptation to the male element of the community in which they reside, for man's sexual craving is not always conditioned by his own instigation—but is more frequently the result of the attitude and actions of his associates. The attitude and actions of an "innocent maid" are by nature the ideal sexual stimulation. Since we know that association with prostitutes exposes a man to venereal diseases which he may transmit to another, and that association with prostitutes gives a man a false idea of genuine womanliness, and that association with prostitutes frequently unfits a man for being an ideal sexual husband, how can one argue that prostitutes in a community tend to protect the "innocent maids" in that locality? On the contrary, prostitutes tend to corrupt young men by encouraging them to dissociate the sexual act from

admiration and respect. They cause men to misunderstand women,—they deprive women of lovers or give them diseased husbands. Thus we see that countenancing prostitutes is surely no way of protecting “innocent maids.” There is but one right way to protect “innocent maids” and that is that the parents and guardians do their duty and enlighten and transform these ignorant and so-called “innocent maids” into chaste maids, for chastity is not so easily seduced as is ignorant innocence.

Legalizing of prostitution is thought to be an ideal measure, but, if we consider the future, we face the fact that the representatives of the people, by their laws, are saying for the people, to the younger male generation, “prostitution is something we have needed and we are protecting it for you to use,” and at the same time they are educating young women to continue the practice. Laws are passed which make thieving a punishable crime with the idea of diminishing future thieving. Why cannot laws be passed relative to prostitution with a thought of diminishing future prostitution rather than encouraging it? The thought that prominent men, the representatives of the people, so acknowledge their use of the wares of the prostitute, that they pass laws legalizing her profession, tends to remove the ban from this element of society. Any representative that votes to control prostitution by laws for segregation or medical examination is inviting and enticing the public to indulge in his labeled and guaranteed wares. Though medical examination may now and then be the means of preventing a man from acquiring a venereal disease, it invites so many more to take chances with what may be looked upon (but is not) a lesser risk, that we must insist that these acts of government are absolutely harmful.

Individuals directing private or public efforts to permanently improve man’s environment must remember that results will not come from doing for him, but by educating him to do for himself.

THE GENERAL PRACTITIONER AND CASES USUALLY REFERRED TO THE SPECIALIST; PARTICULARLY THOSE OF THE NOSE AND THROAT.

BY

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IN these days when the race for the nimble dollar is of necessity so active, when the tendency in the practice of medicine is almost invariably toward specialism, when it is realized that the family physician in the sense formerly used is almost a thing of the past, it is well to pause and see whether or not the pendulum has swung too far.

There is the surgeon who does nothing but surgery who feels that you should send every patient to him who requires the use of a knife in any way even to the opening of an abscess; there is the gynecologist who wants to treat all the diseases of your patients peculiar to and that come under the head of diseases of women; there is the pedologist who would have you understand that when a baby or child gets sick, if you would have that child receive the best and most skilled and intelligent treatment possible, he should be consulted. The same state of affairs applies to diseases of eye, ear, nose, throat, orthopædic surgery, diseases of the heart, kidney, liver, respiratory organs, etc. Then there is the man who makes anæsthesia a specialty; then again there is the physician who thinks he can cure all his patients chiefly by the use of electricity, vibration, high power lamps, or other methods of physical therapeutics; then there is the man who would cure all foot and spinal trouble by the use of a peculiarly constructed shoe. I might thus, like the brook, "go on forever," but it is needless. It would seem that there is very little that the general practitioner does that does not encroach on the sphere of some specialist, or if I had greater temerity I might dare suggest that the various specialists encroached on the sphere of the general practitioners.

The methods of cure practiced by the various specialists are all right and proper, but you have the same right to use them. Do not be narrow. Learn and adopt as many methods of successful practitioners as you choose and use them. Be broad-minded. Learn to adopt good methods wherever found and make them a part of your own methods. Be broad gauge.

There are scores of physicians to-day who would find an increased income of a few hundred dollars each year very welcome. This can be accomplished by almost any physician no matter where he is located, if he will make a little effort to treat certain conditions which the public have learned to allow to go from bad to worse until actually bad enough so that the advise of a specialist is really required.

To accomplish this end, in connection with nose and throat conditions, the physician should equip himself with a few simple instruments which are almost as simple and easy to use as a clinical thermometer and then on every possible occasion practice their use.

Get a head mirror, a tongue depressor, a few laryngeal mirrors, a nasal speculum and some proper applicators and forceps. Get a few of the solutions and sprays most used—cocaine four per cent., Dobell's solution, Seiler's spray and begin carefully and thoroughly examining cases and you will be surprised to see how quickly a definite knowledge of normal and pathological conditions will be acquired. And if you choose, and there is no reason why you should not, get a tonsilitome and an adenoid forceps and operate your own nose and throat cases yourself, and as you acquire more skill get more instruments and broaden your sphere of practice.

One of the bad throat troubles is quinsy, I will not discuss the remedies usually indicated, belladonna, hepar sulphur, etc., but will tell one local application which will do much to add to the comfort of the patient and your own reputation. I dare say you will be as skeptical as I was when first told of the treatment, but if you will jot it down in your memory and try it some time you will find it invaluable to you. First, paint the inflamed tonsillar tissue with cocaine—I use a four per cent. solution,—then in a few minutes make an application of a little fuming nitric acid to the tonsillar tissue on a small pledget of cotton wound tightly on the end of an applicator, being sure to do it quickly while the patient is expiring air from the lungs or holding the breath. Also be sure to hold the tongue out of the way with the tongue depressor. The relief that the patient will experience will be marked and usually immediate, and if applied early I have learned to expect the attack to progress to a cure without the use of a knife or without breaking. The treatment not only seems to stop the development of the trouble, but also the recurrence of the disease is usually made less frequent.

A child was brought to me who had had an ichorous discharge from the nose for weeks. This child had been taken to a number of physicians who had failed to effect a cure. An examination under good light showed that the child had crowded into its nose the rubber eraser from a lead pencil. This was removed and the child's trouble very soon disappeared.

One other condition occasionally met with that can almost invariably be cured if properly and persistently treated is that awful condition called ozoena. Thick crusts form all through the nostril above and below the turbinated bones and the resulting stench is such that it is very disagreeable to treat, and, strange as it may seem, the patient himself is unable to notice the odor. This condition should be treated daily at first and later, when the improvement is pronounced less frequent according to the conditions of the case. The treatment that I have found most successful consists of loosening up the crusts by aid of the post nasal syringe using a warm alkaline solution. The syringe that I employ is the usual hard rubber one introduced through the mouth, turned upward back of the posterior nares and the solution allowed to run out through the nostril, which is accomplished by the patient inclining his head forward and allowing the solution to run forward and out of the nose into a bowl held in his hand. After this is repeated several times peroxide of hydrogen full strength or somewhat diluted is used, employing cotton on a suitable carrier and with a good light from the head mirror the crusts are easily loosened and removed through the nostril, the patient assisting by blowing the nose from time to time. The size of the crusts thus removed is often remarkable. After the removal is completed an application of ichthyol, 25 to 50 per cent. is made. Add a little oil citronella to the ichthyol solution and its offensive odor is greatly lessened.

A case of hay fever of many years' standing was cured by the removal of a spur on the septum. This man had been examined by various physicians yet none had suggested the nasal deformity as being the cause of the trouble.

Another condition not so frequently met but that is very apt to prove fatal and that is often unrecognized, is laryngeal tuberculosis. As this is a meeting composed chiefly of general practitioners I trust you will permit a digression which, while it applies to laryngeal tuberculosis as well, applies more forcibly to the general form. In the State of New York there is now

waging a war to stamp out tuberculosis. The State Department of Health, with our Dr. E. H. Porter at its head, has inaugurated a magnificent crusade. The disease is coming to be recognized by the inhabitants of the State everywhere as well as physicians, as being a contagious disease that is curable as well as preventable.

In order to cure the disease it must be recognized early. If you are not on the alert so as to recognize it early, in the name of humanity do not exile your patient in the later stages to some resort to die among strangers. Dying from tuberculosis is bad enough when at home and among friends. Do not add to the agony by sending the unfortunate person among strangers.

In this great country of ours there is at the present time in round numbers 80,000,000 of people, and unless the death rate from this great white plague is lessened 8,000,000 of these will die from tuberculosis, and of the people who die between the ages of fifteen and fifty, the wage earning period, fully one-third will die from consumption.

Tuberculosis kills as many people as diphtheria, croup, whooping cough, scarlet fever, measles and typhoid fever combined.

In the language of Charles E. Hughes, Governor of the State of New York: "If we had through the misfortune of war, or the sudden rise of pestilence, or through some awful calamity, the destruction of life that annually takes place on account of the spread of this disease (tuberculosis), we should be appalled, and mass meetings would be held in every community and demand would be made that the most urgent measures should be adopted. It is only because we are accustomed to this waste of life and are prone to think that it is one of the dispensations of Providence that we go about our business, little thinking of the preventive measures that are possible."

In the early stages 75 to 85 per cent. are curable. The prevalence of the disease means something wrong with our manner of living. The cure can be effected in our own home climate, be that where it may, even as at the resorts and sanitariums for the treatment of tuberculosis of nation-wide fame. What is necessary is the scientific and intelligent use of fresh air, sunshine, good water, abundant and nourishing food, including plenty of milk, cream and eggs, meat, vegetables, fruit

and rest and suitable medicine under a competent physician's care.

In addition to all this I have for the last eight months been investigating the value of the inhalation of ozone made electrically, and then passed through certain oils of the pinus group by a mechanical apparatus similar to an atomizer. This takes out all the nitrous acid fumes from the mixture and also forms a chemical union with the ozone so as to form a new compound that can be breathed readily. Its action is two-fold, germicidal to the bacteria with which it comes in direct contact and also a more noteworthy result comes from the combination of the large amount of ozone compound with the blood in the lungs which is thus carried to every part of the body. An indefinable exhilaration results from the treatment from the thorough oxidation of the blood. The vitality of the person is increased. I have repeatedly seen the subnormal temperature in run down patients raised one or more degrees to the normal mark during a single treatment. In bronchitis, syphilis, anæmia, neurasthenia, insomnia as well as tubercular troubles the results are gratifyingly beneficial.

In the bad climate of Chicago, Dr. W. B. Neel treated 365 cases of tuberculosis and 204 cases made complete recovery. No case was pronounced tuberculosis that did not show the presence of the tubercle bacilli and none were pronounced cured who had any symptoms of the disease left.

In the laryngeal forms of tuberculosis the treatment will depend on a variety of circumstances which will indicate the treatment. It is a very painful condition in the advanced stages and it is sometimes necessary to use opiates. Mild anodynes to control coughing may be needed. Local treatment in the form of sprays of oil of eucalyptus camphor or menthol may be used. Insufflation of aristol, boric acid and iodoform and a number of others are sometimes of service. Wherever it is possible to do so the thorough removal of the diseased part by surgical means should be practiced. This is possible in the case of isolated points of ulceration or excrescences that occur in the upper part of the larynx, but it is not possible where there is a general breaking down or where there are several lesions in the vicinity of or below the vocal cords.

Some of the best local applications to keep in stock are:

Cocaine, four per cent.

A combination of, iodine, 10 grs. ; potas iod., 20 grs. ; glycer-

ine, 1 ounce, to use as a general stimulating application. This is usually used half strength.

Nitrate of silver, from 5 to 60 grs. to the ounce.

Tannin and glycerine, 5 to 10 grs. to the ounce.

After a turbinectomy use tannic acid, 2 parts; gallic acid, 1 part in weak carbolic solution to stop the hæmorrhage.

Resorcin is good in hypertropic rhinitis.

For ulcerations, especially the specific varieties use cold cream 1 or 2 ounces in which 1 drachm tannic acid has been thoroughly rubbed.

Use argyol, 10 per cent. to 40 per cent. in naso-pharyngitis with hypertrophy and thick discharge. This is also good in sub-acute or chronic laryngitis. It lacks the irritable effect of silver nitrate.

Silver nitrate, 5 grs. to the ounce. Use as a spray or swab in laryngitis in acute cough following colds.

The careful use of the thermo-cautery will often cure a hypertrophied turbinated body in the nostril and thus do away with the necessity of an operation. In operative work on the nose be conservative. Do not destroy too much tissue else an incurable atrophic condition may result.

To summarize, there are many cases which are puzzling and unsuccessfully treated because the proper diagnosis is not made. Correct diagnosis is often not reached because we are in too much of a hurry to exhaust our means of investigation. Instruments of precision help when used intelligently but will not take the place of intelligent investigation. There is nothing that helps determine the proper treatment more than an accurate diagnosis, and if all of us would always exhaust every means of diagnosis the necessity of specialists would well nigh disappear, or rather every physician would then become what he should be, as capable as any specialist in the line that he follows.

CHOLESTEATOMA IN RELATION TO CHRONIC MIDDLE EAR SUPPURATION.

BY

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THE relative frequency of cholesteatoma and its importance in relation to chronic middle ear suppuration has not been generally recognized for the following reasons:

1.—That until quite recently the methods of diagnosis have not been entirely satisfactory.

2.—That those cases of cholesteatomæ recognizable only by operation have escaped diagnosis in the hands of those who preferred the conservative to the radical method of treatment.

3.—That those cases which were recognized before operation, have in many instances *apparently* yielded to conservative treatment with alcohol or weak formalin solution.

Relative to the frequency and importance of cholesteatoma, —Heine, of Königsberg, found in 1,400 cases radically operated, 616 with cholesteatomæ, almost 37 per cent. From a personal study of 105 cases of chronic middle ear suppuration, I found cholesteatomæ in 18 per cent. and among these, labyrinth suppuration, sinus thrombosis and other intra-cranial complications occurred five times oftener than in those cases without cholesteatoma. Neumann, in his monograph upon Cerebellar Abscess, gives statistics which show that cholesteatoma is the most frequent cause leading to labyrinth suppuration, cerebellar and temporal lobe abscesses, secondary to chronic middle ear suppuration.

According to the period of its development, we may classify cholesteatomæ into: I—congenital and II—acquired. Typical of the congenital is the cholesteatoma of the dura mater. According to its origin, the acquired form may be divided into the primary and secondary.

Since the number of primary * cholesteatomæ reported are so few and unimportant, we shall not consider them in this paper; furthermore, we shall omit consideration of the few cases

*Lucæ's case warrants its classification among the primary Cholesteatoma of the middle ear, since there was no evidence of there being or having been a suppuration of the middle ear. Other cases reported lack evidence sufficient to warrant their classification among the primary Cholesteatoma.

of cholesteatoma originating in the external ** canal and limit our discussion to the cholesteatoma of the middle ear, secondary to chronic suppuration.

A cholesteatoma is a more or less spherical, lamellated mass of epidermis (Steinbrügge first compared this lamellation to that of an onion). The surface of the cholesteatoma is dry, smooth and glistening, of a pearly gray color, and is composed of several thicknesses of living nucleated flat epidermis cells. The more central parts of the cholesteatoma are composed of a dirty gray cheesy-looking mass containing epidermis in various stages of degeneration, fat crystals, cholestearin crystals and debris (Politzer, Alexander), but no bacteria, as has been claimed. The bacteria, when present, is an indication of a secondary infection of the cholesteatoma (suppurating cholesteatoma). Extending from the primary growth are smaller secondary nodules. These latter may extend considerably into the neighboring bony depressions and even into the widened Haversian canals of the surrounding bone, a fact first pointed out by Kirchner.

The bone adjacent to the cholesteatoma presents a smooth, polished, hard, glistening surface and is covered with flat epidermis known as the matrix of the cholesteatoma. Cholesteatomæ vary in size from that of a pea and smaller to that of a walnut and larger. They may originate in any part of the tympanic cavity but are most frequent in the outer attic (Bezold). The next most frequent places are the aditus ad antrum and the antrum; very rarely the mastoid.

During its growth, the cholesteatoma destroys the surrounding bone by a process of pressure atrophy; surrounding which is a zone of osteo-sclerosis. Occasionally but not necessarily we find associated caries and necrosis. Eventually the cholesteatoma which began in the middle ear spaces destroys the bony walls and invades the surrounding structures. This erosion may take place in any of the following directions:

a.—*Externally*, leading to complete destruction of the external attic wall; fortunately this is the most frequent.

b.—*Inward*, causing destruction of the facial canal with resulting facial palsy; destruction of the horizontal semi-circular

**Bezold refers to a rare form of Cholesteatoma of the external canal associated with concentric widening of the bony canal due to a disturbance in the physiologic growth of epidermis—resulting in overgrowth.

canal with resulting fistula and subsequent labyrinth suppuration; less frequently the promontory.

c.—Upward, through the tegmen-tympany exposing the middle skull fossa, resulting in extra dural or temporal lobe abscess.

d.—Posteriorly and inward, exposing the posterior skull fossa with resulting sinus phlebitis and thrombosis; deep extra dural or cerebellar abscess.

e.—Downward, through the floor of the tympanic cavity exposing the bulbus jugularis with resulting thrombosis; less frequently downward through the mastoid process resulting in Bezold's abscess.

f.—Anteriorly, very rare; exposing the carotid, mandibular joint and even the parotid gland.

Originally Virchow, Mikulicz and Küster believed the cholesteatoma to be a heteroplastic growth. Later Bezold and Habermann proved it to be a growth formed by the migration of epidermis from the external canal into the middle ear through a perforation in the tympanic membrane.

The following two conditions are necessary for the migration of epidermis into the tympanic cavity with resulting cholesteatoma formation:

I.—A peripherally placed perforation in the tympanic membrane (Bezold, Habermann) or an adherent hammer-handle (Politzer, Neumann).

II.—A chronic suppurative process in the middle ear with a loss of epithelium and a moderate (not too profuse) amount of secretion with some tendency to healing (Politzer).

The first condition excludes cholesteatoma in acute suppuration, since here we never have a peripheral perforation nor an adherent hammer-handle.

The migration of the epidermis into the tympanic cavity is Nature's effort at healing and a too profuse secretion is not only a contra-indication of healing but at the same time hinders this migration.

Under favorable circumstances the migrated epidermis may eventually cover the entire middle ear spaces, resulting in healing. This natural method of healing in chronic middle ear suppuration has been imitated artificially with more or less success by many operators who practice skin grafting into the bottom of the wound cavity, left after radical operation. On the other hand, under unfavorable conditions (localized granu-

lations, etc.) the migrated epidermis may take on an excessive growth with the resulting formation of a cholesteatoma.

Let us next consider the signs of cholesteatoma in the order in which we find them by our examination:

I.—*Scanty, thin, fætid discharge mixed with dirty gray colored debris.* The discharge is scanty for the reason previously stated,—that a profuse discharge is unfavorable to the formation of a cholesteatoma. Likewise its character is thin; however, in exceptional cases (suppurative cholesteatoma) the discharge may become copious and thick and indeed, if in the course of chronic middle ear suppuration, the character of the discharge changes suddenly from a scanty and thin to a profuse and thick secretion, the indication is that a previously uninfected cholesteatoma has become infected.

A further characteristic of the secretion is that it varies in amount from time to time and may apparently cease for weeks or even months, as a result of which, cases of cholesteatoma have been discharged as cured, which later developed severe intra-cranial complications.

The fœtidity is of a peculiar character, unlike that of long-standing pus in the middle ear, and persists in spite of cleansing treatment with antiseptics.

The dirty gray flakes in the secretion are particles composed of degenerated epidermis shed off from the cholesteatoma.

II.—*Peripheral perforation or adherent hammer handle.* From a causal standpoint one or the other of these must be a typical otoscopic finding.

In the cases studied by Alexander and myself, this characteristic finding was always present.

The location of the perforation may be in any quadrant of the membrane so long as it reaches to and involves the annulus tympanicus, excepting in the case of a perforation in Shrapnell's membrane, where anatomically the annulus does not extend. It is due more to the absence of the annulus than to any other factor which permits the perforation in this region to reach the periphery more readily than in other parts.

The adherent hammer handle acts in two ways in producing cholesteatoma: first, it helps to close off the antrum and epitympanic space, thus favoring the retention of secretion which acts as a constant irritant; second, the hammer handle affords a bridge across which the epidermis from the canal can pass into the tympanic cavity.

III.—*Associated Granulations.* I use the term granulations in contra-distinction to polyps. I am inclined to the view of Alexander that granulations act as a causal factor in the production of cholesteatoma and in the cases studied by us we found them present in the majority of cases prior to operation and in the remainder at the time of operation; the granulations being found at the attachment of the cholesteatoma.

Associated granulations with cholesteatoma have been more or less uniformly observed by all who have interested themselves with the study of cholesteatoma. It is, therefore, our duty in every case where granulations are present to examine further for the presence of cholesteatoma.

IV.—*Extensive bone destruction.* Especially in cases of extensive destruction of the lateral attic wall or the posterior bony wall of the canal we should suspect cholesteatoma; however, the absence of this sign should not be taken as a negative one, for the cholesteatoma may have destroyed the bone in some other direction, an evidence of which may be found in hard, gritty particles in the discharge.

V.—*The presence of a part of the cholesteatoma as a white, pearly mass, visible by otoscopic examination.* Whenever seen as such the diagnosis is certain; however, this is possible only in a relatively small per cent. of cases. Prior to the present decade this was the sign most depended upon for the diagnosis of cholesteatoma. In many cases, instead of a pearly mass, the cholesteatoma may present itself to our view as a mass of dirty gray detritus, mixed with epidermis flakes, casually spoken of as inspissated epidermis, a sign quite as conclusive as the pearls.

VI.—*Closure of the orifice of the Eustachian tube with new-formed membrane* (Politzer). This sign has not been widely recognized. I have found it present in about 20 per cent. of the cases and when present believe it to be an important sign.

VII.—*Presence of cholestearin crystals in the discharge.* This is without doubt the most important and certain sign of cholesteatoma. Cholestearin crystals are a product of degenerated epidermis, as previously stated, and must of necessity accompany every cholesteatoma. From the series of cases studied the crystals were absent in only 8 per cent. and their absence is explainable upon the ground that these cholesteatomæ were so small and the cholestearin crystals so few in number that they escaped observation.

The method of obtaining and examining the crystals is as

follows: First, thoroughly cleanse the external canal by syringing and then mopping with cotton; second, introduce the tip of a Hartmann's canula into the tympanic cavity through the perforation and wash out the cavity with sterile water at 37° C.,† turning the tip in different directions, especially upwards and backwards. The presence of polyps need not necessarily interfere with this performance since we can generally get the canula past the obstruction around the free margin of the polyp. The washings from the tympanic cavity are collected in a pus basin. It will be noticed that the basin contains white shiny flakes floating upon the surface of the water and other dirty gray particles which have settled to the bottom. The third step is the collection of all solid particles with forceps of a probe and placing them on a glass slide with the little water that may be clinging to them. Without fixing, staining or further preparation they are covered with a cover-slip which is gently pressed to flatten them out. Thus in a natural state we study the preparation under the microscope, using a 1-6, a 1-8 or 1-9 objective. It will be found that the white flakes which floated are composed almost entirely of epidermis in a fair state of preservation but no cholestearin crystals, whereas the dirty gray, heavier particles contain besides degenerated epidermis, pus cells, active cocci and bacilli of all sizes and shapes, granular debris and fat crystals, the typical cholestearin crystals.

Cholestearin crystals cannot be mistaken for anything else; they are colorless, flat, rhomboidal crystals. They may be found single but generally are multiple. It frequently happens that a corner may be broken off, probably the result of fracture during the mounting. When the crystals are found multiple, it will be seen that the corresponding surfaces and edges of the several crystals are parallel. The presence of a single crystal is sufficient for a positive diagnosis. The examination is not difficult when one has a microscope, and occupies not more than 5 minutes' time; it can be made by anyone with skill sufficient to introduce the canula.

The above enumerated signs are vastly more important in the diagnosis of cholesteatoma than any symptom or set of symptoms which the patient may present. According to Po-

†The water is used at 37° C, since if warmer or colder than this temperature it would likely produce vertigo and its unpleasant train of symptoms.

litzer, a cholesteatoma may persist for years without symptoms, or may be associated with a feeling of weight or pressure upon that side of the head, headache and vertigo. Other authors attach importance to marked impairment of hearing, with shortened perception for high tones which are present, out of proportion to that found in cases of chronic middle ear suppuration without cholesteatoma; however, the opinion of the writer is that an uninfected cholesteatoma is unassociated with symptoms, other than those which commonly belong to chronic middle ear suppuration, and that when headache and vertigo, very marked impairment of hearing with shortened perception for high tones and other odd symptoms exist, they do not belong to the cholesteatoma proper but to the extension of the cholesteatoma beyond the limits of the middle ear spaces.

Fortunately an uninfected cholesteatoma spreads so gradually that the otologist has ample time to observe his case and make repeated examinations, if necessary, before making his diagnosis. On the other hand, a cholesteatoma may at any time become infected by the use of unclean instruments or by minor intra-tympanic operations—such as removal of polyps, ossilectomy, etc.; when the cholesteatoma swells rapidly and becomes one active suppurating mass, it is almost invariably and promptly followed with vital complications.

Concerning chronic middle ear suppuration, Wild says and Bezold reiterates it—that, “so long as a discharge from the middle ear is present, we are unable to tell how, when or where it may end, nor to what it can lead”; if this applies to chronic middle ear suppuration in general, then it applies with double force to those cases associated with cholesteatoma.

The treatment of cholesteatoma has been conservative and radical.

The conservative treatment with free intra-tympanic anti-septic douchings, followed by alcohol or a weak formaline solution, has given apparently good results in the hands of some men; however, the experience of others show that though the cholesteatoma may be less evident for a longer or shorter period after such treatment, it invariably recurs. It has been shown that no amount of alcohol nor formalin will reach and destroy the matrix; besides, in most cases the matrix is so located as to be inaccessible to such treatment. In view of these facts and knowing the tendency of the cholesteatoma to spread to vital extra tympanic structures and the still greater danger

of it becoming infected, it is far safer to accept the teachings of the leading otologists and treat radically every cholesteatoma even at a stage before vital symptoms have had an opportunity to develop.

The radical treatment consists of the "Radical Operation" after Küster—Bergmann with total excochleation of the cholesteatoma together with the surrounding bone 1 or 2 m.m. thickness to include the matrix and all the small bud-like projections, no matter where it may lead us. The operation, in case of cholesteatoma, is generally easier than in other cases since the cholesteatoma leads us readily into the widened antrum. The important part of the operation is to see that every trace of the surrounding sclerotic bone has been thoroughly curetted.

SANITARY MEASURES IN THE OPEN AIR TREATMENT OF PULMONARY TUBERCULOSIS.

BY

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PULMONARY tuberculosis is so fully and freely discussed now-a-days that, on first thought, there seems to be little to add to the volumes already written on the subject. However, at this time, when all classes of individuals are studying how to prevent and cure the disease, and when the National Government and the various State governments, as well as those who are in authority in the counties, cities and towns everywhere, guided and advised by the members of the medical profession, are striving to wipe the disease out of existence, it is a most opportune time to present this subject for consideration, since it is so thoroughly in sympathy with the spirit of the age.

In the city of Washington, D. C., gathered from all parts of the globe, from twenty different nations, the foremost peoples of the earth,—the makers of history in the world-wide campaign against tuberculosis, are now in session. There, in the transaction of the International Congress for the Study of Tuberculosis the great fight will be vigorously pushed forward. We will all anticipate with interest the latest word from those

men who shall participate. They are the men whose eminence in the profession, entitles them to speak, and when they do speak, what they say, will come to us with authority. They will tell us the best, the surest and the safest methods of preventing and curing tuberculosis. We will then use and approve their methods and will finally disseminate the good in all of them so that what has been most recently learned may contribute to the restoration to health and comfort and usefulness of such of our clientele as suffer from tuberculosis and likewise protect those who are in danger of contracting it.

I regret that I am not one of the eminent authorities, because my experience has been somewhat limited, and for this reason it is necessary for me to bring into this paper, illustrations that will appear more or less personal. I offer this apology now, for if the statements I am about to make are not made definite and specific it seems to me that they will lose much of their value.

Sanitary measures, (those things which are done to assist the organism in regaining its normal status,—health—) are no less important in the open air treatment of tuberculosis than in those other methods of treatment that we are forced sometimes to use. To *be* well one must live *well* and the best way for the tuberculous patient to live is to live in the open air. If the patient is to recover, let him live,—rest, if you please,—where there is pure air, fresh air, dry air; and let him have good, nutritious food, then nature will do the rest. Under such conditions he will regain his former sense of well being and his buoyancy of spirit; his color or complexion will be improved; he will develop a better appetite and gain in weight; he will lose his cough and gain in strength. His health will come back slowly or rapidly, partially or completely, however, just in proportion to the stage of advancement of the disease when scientific open treatment is begun. Need we stop when we place our patients in the *best atmosphere* if we can find and supply them with *proper food* and put them at rest? Furthermore, where is the best and purest air to be found? Is the air of one locality just the same in chemical composition as that of every other? Is the air, just *air*, other things being equal?

These questions, and those other ones, as to how to provide hygienic conditions and sanitary surroundings, come up for answer every time we discover a tuberculous individual. What

must we do more than to put him into fresh air? We want to answer these questions conscientiously when they arise.

A few years ago, a physician who did not advise his "case" to go to the high altitude of Colorado or the dry atmosphere of Arizona or the salubrious climate of California or some other far-distant point for a "change of climate" was hardly considered orthodox. It did not matter what the patient's financial ability to go was, nor how impossible it was for him to leave home, he got the advice anyhow. Some patients were benefited by the plan; others were injured by it, and more still were just left to their fate. Later, "cases" were treated nearer home, and the percentage of cures was greater than when they were sent into the far West. Such good results seemed to prove that air is just air after all. Then the other extreme came to be practiced,—namely, to treat all the "cases" at home. I have no doubt but that this last plan of treatment has been a boon to many thousands of incurables, whose lives have been prolonged by keeping them at home and out of doors, and to whom a measurable degree of comfort is thus afforded while life lasts.

But to use it as a routine practice seems just as pernicious as the first plan; and those, if any, who follow it are assisting in sacrificing to the enemy many promising lives that should be saved. One such sacrifice comes to my mind most vividly. A young man, of brilliant mind and noble character, contracted the disease while taking a medical course. He got along fairly well for a time then his health began to decline rapidly. He was taught in his course (and he believed it) that "cures" are just as readily effected at home as on the mountain. He, therefore, steadfastly refused to go to a sanitarium and declined all offers of financial help made by members of his family, in order to enable him to go there. He claimed,—and many others do,—that fresh pure air is the only matter for consideration. But they ignore such important features of the open air treatment as sunshine, dryness, temperature, altitude, atmospheric pressure and rapidity of air currents. He had the best of home care, and most devoted nursing, but he died just one year after graduation.

I believe that the selection of ideal climatic conditions for each tuberculous individual is impossible; but by carefully studying the case in hand, and by knowledge of the difference in climate of the several localities, a good selection can be made. After the choice of the place is made, the arrangements to keep

the patient out of doors as many hours of the twenty-four as at all possible must be perfected, and rules of right living must be laid down for him. If he is left to his own inclination he will waste many hours in indoor visiting which will make necessary additional months of treatment. He wants to be made physically comfortable and have pleasant surroundings and an agreeable outlook.

There are many good private sanatoria available at the present time where patients who can afford to pay from \$15.00 to \$25.00 per week for treatment will find everything prepared in advance that would contribute to their comfort and pleasure. In State sanatoria also the patients find excellent arrangements that are intended to make their sojourn there healthful or health-giving and agreeable. Our own State stands in the front rank in caring for her afflicted citizens. Her advancement in fighting tuberculosis scientifically has been due to the untiring energy and the constancy of purpose of Dr. J. T. Rothrock, who did pioneer work in creating a sentiment in favor of the out-door life. He organized the South Mountain Camp Sanitarium, on land belonging to the State,—a portion of its Mount Alto reservation,—and carried the work forward successfully until, by legislative enactment, the burden of carrying on the work fell upon Dr. Dixon, our very efficient Commissioner of Health. He has put so much enthusiasm and hard labor into this section of his department that he has accomplished wonders in two years. Under his administration the camp has been greatly enlarged and improved in every way. He has also selected competent men to assist him in this work, in every county of the State, so that practically every citizen who has tuberculosis, can, if he desires to do so, have scientific treatment at the expense of the State, on a mountain top, at an elevation of 1,650 feet above sea level.

There are a great many patients, however, who cannot or will not go to any kind of an institution. It is for the benefit of these that I want to outline and illustrate a plan that has succeeded well for me. A patient wanted, for various reasons, to remain as near home as possible. Her husband explored the territory contiguous to the city thoroughly, in looking for a location. His search resulted in the procuring of a tract of land having an elevation of from 700 to 900 feet above sea level. It had on it a small cabin, situated at about 700 feet altitude on the southern slope of a steep hillside. The cabin faced the

south. These desirable conditions were taken advantage of in preparing to renovate and improve the place. Suitable plans were prepared by Mr. M. I. Kast, architect, of this city. The additions made were a ten-foot porch on the front, and an eight-foot one on the western end; also a porch and pantry on the rear. There was added to the second floor a balcony ten feet wide. A portion of this making a room 10 x 16 feet was closed in with weather boarding, except four windows, to provide an indoor sleeping room. The remainder of the balcony 10 x 15 feet was made into an out-door canopy sleeping-room. This balcony is used open, except when it rains; when canvas drop curtains are used. These curtains can be used also to assure privacy, but are scarcely needed for that purpose on account of the seclusion of the entire building. The only articles of furniture used there are a bed, a chair, and a washable rug. The patient sleeps on this balcony from early springtime until very cold weather comes, except possibly during a severe thunder storm, when, if she is timid, the balcony room might seem more secure. The room was done in surfaced yellow pine. The studding and rafters which are surfaced, also, are uncovered. The windows,—single ones on the east and north, and triple ones on the west and south,—admit plenty of fresh air and sunshine. Sunshine is available in the room almost the entire day. The large windows open on weights and the side windows on hinges. They are all open on clear days but in stormy weather the ones to windward are closed, or at least partly closed. This room is always cheerful and bright and because of its arrangements for a maximum of fresh air and sunshine, these two great disinfectants are ever present.

The furnishings of this closed-in room consist of a bed, a washstand and a small glass-top table, (all made of iron, enameled) several easy chairs, a rug, and a corner closet. Simplicity of arrangement to facilitate sanitation and cleanliness is always desirable. The second-story elevation of these rooms brings to the patient a feeling of security that prevents the nervousness and fear that comes to many patients, especially females, when they are required to occupy a place, alone, on the ground floor. Both of these rooms communicate with a room in the main part of the house which is comfortably heated in cold weather. Here the patient may, with comfort, make the necessary changes of clothing.

I want to refer to the furnishings of the main porch. They

consist of a bed-hammock, several rocking chairs, a steamer chair, and drop screens. These as a means of contributing to the patient's physical comfort are intended to induce her to remain out of doors whenever she is "down stairs." The screens are made of strips of wood and are intended to shut out an excessive amount of light and heat in the middle of the day. They do this nicely but admit the air. Canvas ones are almost air tight and large awnings are very expensive.

The bed-hammock was patterned after the bed-hammock of commerce, but was constructed to be more durable and less expensive. Every patient enjoys the use of a hammock, but the ordinary one is so constructed that the patient who occupies it, lies with the organs of the chest and of the abdomen somewhat crowded or constricted. This was overcome for the case described by using an ordinary bed-spring 3 x 6 feet, made on angle iron. The manufacturer was instructed to put a large iron link into the end of each side piece. A chain dropped from the ceiling in the shape of an inverted "Y" was fastened to these links. The use of four big chains, leading from the four corners of the bed to the ceiling and attached there would be just as satisfactory. A mattress, made in three sections, completes the bed which is just as comfortable as any stationary bed. The section mattress is moved indoors more easily than one made in one piece. These conveniences for living the outdoor life have been thus far very satisfactory for this case.

For those "cases" who must be treated at home we can arrange an ærium "which provides for the partial outward extension of a cot bed from an open window, the head and shoulders of the patient being in the open air though protected by an awning outside of the window;" or the window-tent, devised by Dr. Knopf, of New York, which is "intended to rest upon a single bed and to enclose the upper portion of the patient's body,—its height, length and degree of curvature being necessarily dependent upon the dimensions of the window." In addition to these devices we can consider the inexpensive balcony, balcony room or sleeping porch. No matter what the patient's station in life may be, his physician must insist upon getting for him the best open, pure air treatment that is possible to secure for such a case. No matter what the patient's moral character is, the physician should be kind to him. He needs encouragement in fighting the disease. He must be given the smile of assurance and the promise of a personal interest. He deserves

these things at the hands of the physician who has his entire and undivided confidence, and the patient will be certain to stand by his physician and follow instructions if he has his doctor's full moral support.

There are some principles of sanitation that he must know and practice if he would do his best in self-help and if he would avoid infecting others. He should study hygiene and apply the principles learned to his own life, in order to care for his own body properly. He must be taught to make the exhalations and the excretions from that body non-poisonous to others. He should know, then, how the germs escape from the body and how they usually invade their new victims. It seems to me that nearly everyone can understand the rudimentary principles of prevention, and if the infected person is made to understand that he suffers because some one else was criminally negligent, he will willingly do his best to avoid being guilty of the same negligence. Of first importance is the collection in some suitable receptacle of every bit of excretion from his lungs and respiratory passages and the thorough destruction of it. Let him take with him constantly a sputum cup or box and small pieces of gauze. Tell him to place the gauze over his mouth whenever he coughs or sneezes in order to prevent the escape of a spray or drop of saliva because there may be germs in these. If the coughing makes the expectoration of mucus necessary, it is to be collected in the cup and destroyed and never deposited upon the ground, no matter how far removed from a habitation the patient may be at the time. There are many varieties of cups and boxes made for the purpose, but usually I recommend the pocket-book like cuspidor, made by Seabury and Johnson, because it is light and convenient and sanitary. It is not very conspicuous when used or carried by patients of either sex. Both the cuspidor and its contents are satisfactorily and easily destroyed by burning. They are not very expensive. For bedside use a covered flask or a paper cup in a metal holder are desirable. These can be operated or opened with one hand and are sanitary and easily sterilized.

The patient's clothing and bedding are to be fumigated frequently to keep them free of germs. They can be placed in a room and fumigated with formalin. Formalin may be used in several ways. It can be had in proprietary combination and the package simply lighted; or, in the liquid form and used in the fumigator of the shops; or by adding to it potassium perman-

ganate (6½ oz. of permanganate to a pint of formalin for 1,000 cu. ft. of space).

If the clothing, underwear and sheets are to be sent to the laundry for washing they can be saturated with a solution of the chlorides or chloride of lime as an additional sanitary measure. Sunlight and fresh air are to be made to permeate the room and the bed colthing. If there is no other way to accomplish this the bed clothes should be adjusted upon a clothes line on every pleasant day. In no better way than this can the contamination of night time sweating and half conscious coughings be overcome. The plan to be adopted for destroying germs in the feces and urine will depend somewhat, possibly, on the location. In city practice the usual methods of using a suitable vessel to contain the excretions and of putting chloride of lime or Platt's chloride, or bi-chloride of mercury in contact with them for at least half an hour before they are thrown into the sewer will be very satisfactory. The management of cases treated in the country is more difficult. The ideal method is in the use of an incinerator. In lieu of this, and it is not often available, the best method is to prepare a water-tight box or tub and place it upon and attach it to a sled. The excretions are to be placed in the box (this is of course adjusted under the ordinary out of doors closet) and mixed with a supply of air-slacked lime and dry sand. Once a week a horse can be hitched to this sledge and be made to draw the box to some out-of-the-way place where the contents are emptied and completely covered with lime. After the refuse has been made inert it can be used for fertilizer but care must be observed in selecting a place to store it temporarily so that it shall in no manner possible contaminate the domestic water supply with it. When cases are treated in the home all the preventative measures must receive extraordinary consideration.

Several days ago I spoke to a man who is taking the cure at home and he told me that he fears that he has infected his wife, thereby creating double trouble. He is an intelligent person and is following out general sanitary measures, but lapsed in his prophylaxis some time or other. If there are children in the home their health must be safeguarded because they may, if ruthlessly exposed, develop any condition from lymphadenitis to meningeal tuberculosis; or from tuberculosis of the joints to Pott's disease of the spine.

Realizing fully then the importance of using *proper* sanitary

measures for the prevention of tuberculosis, I want to say that when such precautions are taken the tuberculous patient need not be exiled from home and friends. I will let those who bear the closest bonds of consanguinity with the tuberculous individual, as husband or wife, continue to exchange the ordinary signs of love; even kissing, which were customary before the disease entered the home. Because to him or her, as the case may be, these marks of affection often represent the only spots of green in the desert termed tuberculosis, without which there is the feeling of being cast out from society.

In this frame of mind no one can wage a winning fight. We must help these unfortunates in every conceivable way to get well and show the more fortunate ones how to stay well. We must keep the debilitated persons away from pathogenic causes and help the strong ones to obliterate such causes. The tuberculous individual must rest and live a hygienic life and the healthy one must live just as hygienically and work for both.

THE APPLICATION OF THE HOMŒOPATHIC REMEDY IN OBSTETRICS.

BY

E. A. KRUSEN, M. D., NORRISTOWN, PA.

(Read before the Homœopathic Medical Society of the State of Pennsylvania, September, 1908.)

THERE is nothing in the field of medicine or surgery that the family physician has to deal with that will bring him more glory and honor than the successful management of obstetrical cases. He is defending the life and health of mothers, and whatever touches the hearts of the mothers of our country touches the hearts of every human being. Therefore, it is due the mothers to have brought to them the very best that our age of medical and surgical skill can produce.

In ages past it was believed that childbirth needed little or no medical attention, and most cases were relegated to the care of older women of the neighborhood, or to midwives. Not until the cases assumed grave and even dangerous symptoms, was the advice and help of a physician sought, and in many cases too late to prevent lacerations of various kinds and degrees, but too late to save life. It is quite probable that if the women of our country could or would observe the dietetic and hygienic laws of health during the period of gestation, there would be

less need for the careful attention of a physician before labor, or even during labor.

Every physician knows full well that under the present status of society and of women in the pregnant state, it is not well for a physician to accept a call to attend a patient in labor unless he has had full control of that patient several weeks before her expected accouchement.

I have sometimes felt that too many of the abnormal conditions found in the lying-in chamber are deemed impossible to relieve, or else relegated to manual or surgical treatment, when the whole trouble could easily be remedied by the administration of the properly selected homœopathic remedy.

In the first stage of labor the old-time idea of allowing time, and a nervous, timid Primipara to work out the problem alone, has been exploded. If there are no deformities of the mother or child, or malpositions, much can be done to shorten and modify labor in every stage, by the use of the similimum. Who has not seen that rigid undilating os soften like magic after the administration of belladonna or gelsemium? In this stage you will often find the pains poorly borne by a nervous, tearful woman. She grows despondent and knows she will not survive her labor, often audibly regretting the day of her marriage. All this can be changed in a few minutes by the use of such remedies as coffee cruda, chamomilla, or pulsatilla, which in their effects are like the pouring of oil on troubled waters; the pains will lose their spasmodic character, and harmonious muscular action becomes established.

In the second stage, when the os uteri is fully dilated and the foetal head has entered the superior strait, there may be a cessation of pains. It may not be an indication for forceps, but for medicine, gelsemium, secale or caulophyllum may re-establish the pains, and in so doing re-enforce the whole female economy.

If there is a neurotic history in the family, signs of convulsions may be looked for and should be met with stramonium, cuprum arsenicosum, cuprum metallicum hyoscyamus, cicuta and others.

It may occur to some to ask: How long shall we wait for the medicine to act in these conditions? My experience has been that the proper remedy will act immediately, and, if no action is noticed in a few minutes after its administration, another remedy should be selected which will shorten labor and make it less painful.

We now come to the third stage, and it is here we find the broadest field for the exhibition of our remedies. The mother just delivered realizes one of the happiest moments of her life. After the pangs of labor have suddenly ceased, her entire system is relaxed and exhausted. The placenta may be adherent or retained. If this is so *pulsatilla*, *caulophyllum*, *cantharis* or *sabina* will greatly aid you in its delivery. Hemorrhages are apt to occur at this stage, which often tax the courage and skill of the physician to the utmost. They become terrific and terrifying, but a stout heart and a clear understanding of the remedy, with a resolute dependence in the *similimum*, will carry the patient safely through the most alarming experiences of her life. Fluid extract of ergot is not to be compared with the action of such remedies as *ippecac*, *china*, *sabina*, *trillium* and *secale* in potencies. These, of course, must be combined with manual treatment in the way of friction over the uterus, hot water and douches, and elevation of the foot of the bed.

Shock and exhaustion can be met temporarily with alcoholic stimulants, but do not depend on them long or you will lose your case. Reaction can better be established by giving *china*, *carbo veg.*, *arsenicum alb.*, *chininum*, *arsenicum*, etc.

After-pains, instead of being lulled by the use of morphia, or *antikamnia*, or some other hypnotic which nearly always leave a train of stupefying symptoms, can be controlled by *gelsemium*, *caulophyllum*, *actæa racemosa*, *belladonna*, *arnica*, *vi-burnum*, *morphia aceticum*.

For septic infection—*arsenicum*, *baptisia*, *echinacea*, *pyrogen*, *lachesis*, and *arnica* will usually start the case toward recovery, which can be safely carried onward to good health by the properly selected remedy.

After attending a woman through a normal, healthy labor, where no special remedy is indicated, I always prescribe *arnica*. After labor the tissues are always left more or less bruised and sore. *Arnica* will relieve that soreness and produce an early repair of the tissues and rest of the patient.

In presenting this subject I have said nothing, or very little, about surgical aid or pathological conditions, but wish only to impress on you the wealth of that great storehouse of remedies that can be used to render labor shorter and less painful if we will only use them instead of delaying, and then, on the spur of the moment, use more radical and questionable methods which often bring failure and disastrous results.

EDITORIAL

THE SIXTH INTERNATIONAL CONGRESS ON TUBERCULOSIS.

THE Sixth International Congress on Tuberculosis will remain for many years to come a prominent landmark in medical history. Drawing together as it did almost seven thousand persons from all portions of the world, including many of the most brilliant and most learned scientists now living, it could not fail to attract universal attention and win universal praise. How far the influence of this gathering will reach no one can tell, but it is safe to say that as a result of the knowledge and enthusiasm growing out of this Congress both physicians and the laity will be stimulated to more active and more efficient efforts to stamp out this ubiquitous disease.

A striking feature of the Congress was the interest manifested in the social and economic aspects of tuberculosis by the lay members. Sections V and VI, which were largely made up of lay members, presented the most thorough and comprehensive discussion of tuberculosis in its relation to the individual and to the state that has ever taken place. The tremendous burden of expense that the disease entails upon the community, as well as the misery and poverty to individuals and to families that result from its ravages, were clearly and impressively demonstrated.

It was universally agreed that the fight against the spread of tuberculosis was not merely a fight against the infective organisms but also a struggle against improper methods of living and bad industrial and social conditions. Emphasis was laid upon the need of better housing, the improvement of ventilation in homes, factories and workshops. Alcoholism with its accompanying debauchery and physical deterioration was also pointed out as one of the predisposing factors to be overcome. The value of popular education along hygienic lines was re-asserted especially because of its prophylactic value. It was the opinion of many delegates, however, that such educational work should be especially directed to the family and associates of the consumptive individual as it is admitted that popular lectures and

pamphlets often do not reach the individuals who are in the greatest danger of becoming infected. It is also true that the children and other inmates of the consumptive's home need more exact and detailed instruction in prophylactic measures than can ordinarily be conveyed in a lecture or by printed literature. Personal work on the part of physicians and nurses is needed to properly carry out this phase of the work.

The educational and scientific exhibits of the Congress were the center of great interest and from an educational standpoint were a brilliant success. Naturally the United States led all other countries in the number and size of its exhibits, but the exhibits of Germany, England and other Continental countries were deserving of special commendation. Of the states, New York presented the best educational exhibit, while it is pleasing to note that the best scientific exhibit at the Congress was from Pennsylvania. Realizing the fact that it will be many years before such a complete and elaborate exhibition of the means and methods of combatting tuberculosis will be collected together again, the United States Public Health and Marine-Hospital Service contemplates the preparation of a series of lantern slides of the exhibits that they may be reproduced from time to time in popular lectures of educational character.

The scientific sessions of the Congress were well attended by a large body of enthusiastic workers of international reputation. As was to be expected there were wide differences of opinion on many of the scientific and therapeutic problems connected with tuberculosis but the free discussion of these differences did much to clear up misunderstandings that previously existed and has shown just what points may be considered as settled and those which are still in doubt.

Probably the most vigorous discussion occurred in the now famous conference *in camera*, called at the suggestion of Dr. Koch, to ascertain the views of the members relating to the transmissibility of bovine tuberculosis to man. In order that the opinions of all participants might be more freely expressed in closed session, it was agreed that the report of the meeting should not be given to the lay press on account of the effect it might have on industrial and legislative matters. Many of the most notable authorities in the world were present, including such men as Koch, Ravenal, Calmette, Arloing, Sims Woodhead and others. Dr. Koch strongly reiterated the views he had previously stated at the Congress in London and later in

Berlin, namely, that there is an essential difference between the human and the bovine bacillus and that bovine tuberculosis is rarely communicated to a human being. "I concede," said Dr. Koch, "and acknowledge that bovine infection can occasionally occur, and I do not wish to be understood as deprecating the efforts that are being made against the suppression of bovine tuberculosis if for no other than for agricultural and general economic reasons. I do not think, however, one is justified in putting that proposition in the foreground as against efforts in the suppression of tuberculosis in human beings." The opposition to Dr. Koch was almost unanimous, most of the members holding to the view that bovine tuberculosis not only can be communicated to man but that it is so communicated in a large percentage of cases. Some of the members went so far as to severely criticise Dr. Koch for the attitude he maintained and Dr. Leonard Pearson stated "that nothing in the world has interfered so much with the control of tuberculosis in cattle as the London address of Professor Koch." After a long, and at times bitter, discussion the conference adjourned without coming to any agreement as to the disputed question. This is particularly to be regretted for while Dr. Koch's attitude will be understood and appreciated by every scientific man the dairymen and butchers whose financial interests are at stake will take advantage of his expressions to urge upon politicians the repeal of the present laws designed to protect the public from the sale of infected meat or milk. Certainly we have strong evidence that such products from tuberculous cattle are both undesirable and dangerous as articles of diet, especially to children, and any relaxation of the present health laws would certainly be a step backward.

The subject of early diagnosis of tuberculosis received considerable attention because of its prognostic and therapeutic importance. The most important advance has been along the line of the local reactions to tuberculin. Both the ophthalmic and cutaneous reactions attracted much attention and while their value cannot be said to be positively established, it would seem that with improved technic in expert hands they bid fair to replace the sub-cutaneous injection of tuberculin.

Strange to say, there seemed to be a tendency to lay less importance than formerly upon the sanatorium treatment of tuberculosis. Emphasis was laid upon the fact that just as effective treatment could be carried out in the home of the pa

tient by a competent physician. The rest cure as practiced in the German "Liegehalle" was strongly criticised and the necessity for exercise and useful out-door work was almost universally admitted.

We have endeavored in this brief review of the work of the Congress to refer to a few of the many phases of tuberculosis that were discussed and to point out the line of thought that pervaded the meetings. Though public interest was to an extent diverted by the present political campaign there were many who seemed to realize that the work of the Congress meant vastly more to the human race as a whole than the tirades of political orators or the time-worn discussions of the tariff question. There are few families throughout the nation, or in fact throughout the entire world, that have not felt the devastating effects of this ubiquitous scourge. It is a subject on which all mankind can meet with common interest and if the result of this great gathering shall be to arouse more interest in and make more effective the efforts that are being made to prevent the spread of this distressing disease it shall have served a useful and noble purpose.

LECITHIN (OVA).—Fahnestock, of Piqua, Ohio, has made numerous provings of lecithin, his observations having covered a number of years of patient work. He reports the following case in which this remedy was used successfully:

A dentist, aged 25 years, gave the following history: Have always been healthy, never having had any illness excepting the ordinary children's diseases. Several months ago, was taken sick in the evening with sickness at stomach, cold and dizzy, and after a short interval went to sleep, but was aroused at midnight, and began to vomit, cold sweat, dizzy, weak rapid heart action. A physician who was called in gave an emetic, which relieved and he fell asleep and slept until morning. At that time was very much exhausted and remained in bed all day. No appetite or thirst all day, but took a little broth for supper. Tongue became coated; tired all the time; no appetite; bowels constipated for the first time in his life. Notwithstanding treatment, he became weaker, losing flesh quite rapidly, rapid heart action, loss of appetite, belching all the time, restlessness, especially during the latter part of the night; easily fatigued; pulse rapid; a little fever after slight exertion; shortness of breath. The entire case took on the aspects of a general breakdown. Sexually impotent. Lecithin 12x, one dose daily for three days was prescribed. The patient then reported stomach better, appetite good; sleep better; not so tired; tongue clean; pulse regular, 76, the first time in months. For one month longer a placebo was prescribed and at the end of that time the patient reported himself well, with normal weight, and sexual functions restored.—*Medical Century*, September, 1908.

GLEANINGS

NOTES FROM THE INTERNATIONAL CONGRESS ON TUBERCULOSIS.—(Abstracted from reports published in the *Journal of the American Medical Association*):

Routes of Infection in Tuberculosis.—Dr. J. Bartel, Vienna: In animals we are able to demonstrate in the lymph glands, in addition to the manifest tuberculosis with specific tuberculosis changes, a stage of "lymphoid" tuberculosis in which the glands show mainly lymphocytic hyperplasia, or are apparently unchanged. The existence of such a lymphoid stage can be demonstrated in man also. Mainly manifest tuberculosis of the lungs with the bronchial lymph glands and cavities in the lungs; but also isolated manifest tuberculosis disease of the lungs, the portals of entrance remaining perfectly intact and all opportunity of direct lung infection being excluded. Under certain conditions, therefore, tuberculosis bears the character of a "cryptogenetic" infection. So far as we can judge at this time, the infection from pharynx, stomach and intestines is far more frequent, particularly during early life, than has generally been considered. Of less importance as compared with general hygienic regulations is the constant dispute concerning the more frequent mode of infection, whether due to swallowing or inhalation, inasmuch as it is difficult to judge the relative effects of deglutition and aspiration.

The Predisposition of the Apices of the Lungs to Pulmonary Tuberculous Phthisis.—Dr. Carl Hart, Berlin: Aside from the infection, the cause of pulmonary tuberculosis in youthful individuals is to be sought in an individual predisposition due to anatomic and functional disturbance of the normal conditions around the superior aperture of the thorax. These improper conditions may be congenital, hereditary or acquired during life. The predisposition is at first purely local. Actual and functional diminution of the pulmonary apices not only favors the deposition of tubercle bacilli, but also diminishes the natural powers of resistance inherent in the tissues. This predisposition determines the localization of the first tuberculous focus in the pulmonary apices. Local predisposition is equally significant for air, blood and lymphatic infection. The final outcome of the battle between the tubercle bacilli and the tissues depends on the degree of this anatomic and functional disturbance in the region of the superior aperture of the thorax. Children do not exhibit this predisposition of the pulmonary apices to tuberculosis. In older individuals (50 and over) the predisposition is caused almost exclusively by inhibition of the function of the superior aperture of the thorax, due to senile changes. The measures to be employed in combating tuberculosis should be directed, more than has been done in the past, against the development of an individual predisposition.

Heredity in Consumption.—Dr. Simon von Unterberger, St. Peters-

burg: The difference between the infectionists and the hereditarians as to the origin of consumption is relative rather than actual, depending on emphasis laid on the organism, on one hand, or on the carrier of infection, on the other. For the genesis of consumption, as of every other disease, a soil (the body) and an exciting cause (tubercle bacillus) are necessary. The latest researches in embryology show us, first, that the chromosomes in male and female ovum-cells are of the same number; and, second, that they vary in quality. Chromosomes and their manifold subdivisions correspond to the separate qualities of the fully developed organism. All chromosomes in the human species are inherited, either in manifest or in latent form; in this way we explain the phenomena of atavism. All tendency to disease that appears in any individual is to be regarded as hereditary, whether or not the corresponding disease can be traced back each time to the parents or ancestors. The tendency to consumption is inherited and may be developed by various agencies. Numerous autopsies show that every man over 30 has remains of a tuberculous infection. These facts show how comparatively easily the human organism can overcome the tubercle bacilli, and give the indication for treatment: the strengthening of the organism by hygienic and dietetic means, the details of which have been worked out by the large sanatoria. We must, of course, seek to destroy the tubercle bacillus as far as possible, but it is utopian to imagine that all the tubercle bacilli in the world can be annihilated. Our chief endeavors must be directed toward strengthening the body.

Human Contagion as a Factor in Infantile Tuberculosis.—Dr. Jules Comby, Paris: Tuberculosis is not hereditary. The transmission of Koch's bacillus from the mother to the fetus by way of the placenta is exceptional. The soil is not inherited any more than the seed. There is no doubt that tuberculous parents transmit the disease to their children, but if they do, it is through contagion. Family contagion explains almost all cases of infantile tuberculosis. Transmission through the milk or flesh of tuberculous cows plays an insignificant part in the transmission of the disease to the human species. The infant can be fully protected against this danger by a proper selection of cows and sterilization of the milk. My investigations have shown that tuberculous children are found only in families in which there are tuberculous members, regardless of the kind of milk consumed. On the other hand, I constantly find on postmortem examinations tuberculosis of the peribronchial glands, which therefore represent the aerial port of entry of the bacillus of Koch. Among 1,432 autopsies on children from the hospitals of Paris during fourteen years I found 529 tuberculous subjects, or about 37 per cent. Among 216 infants from 0 to 3 months, 4 tuberculous, or less than 2 per cent.; of 1,008 from 0 to 2 years, 252 tuberculous, or about 25 per cent. After the second year the proportion of tuberculous cadavers attains 45, 50, 60 and 65 per cent. All this is fully explained by human contagion. I think the prophylaxis should occupy itself with tuberculous human beings and not with cows.

Occurrence of Pulmonary Tuberculosis in the Children of Tuberculous Parents.—Dr. James Alexander Miller, New York: One hundred and fifty children, whose parents were under treatment for tuberculosis at the

Bellevue Hospital tuberculosis clinic, were arefully examined, and form the basis of this report. Few of these children were brought by their parents because they seemed ill, and very few had symptoms which were marked enough to attract the attention of their parents. The examinations were made as a routine procedure to find out how many children living in close contact with parents who had advanced tuberculosis would be found to have evidence of disease themselves. Their ages varied from 2 to 15 years, with an average of 8 1-2 years. It was found that a positive diagnosis of tuberculosis could be made in 76 children or 51 per cent. of all examined; 43 children, or 29 per cent., were considered not tuberculous, and in 31 children, or 20 per cent., the diagnosis was doubtful. It would thus appear from this limited number of cases that approximately one-half of the children of tuberculous parents, living in the tenements at least, probably have tuberculosis themselves. It was found, however, that the diagnosis was difficult, and the evidences of disease slight; and it seemed probable that in the majority of cases with ordinary care the disease would become cured of itself, or else be held in check to break out perhaps in later life. The results are significant in suggesting the possibility of infection during childhood being the cause of many cases of pulmonary tuberculosis. The tuberculin tests were used extensively and were found to be reliable.

Flies as Agents in the Dissemination of Koch's Bacillus.—Dr. C. Andre, Lyons, France, reported the results of his investigations:

Flies are active agents in the dissemination of Koch's bacillus because they are constantly going back and forth between contagious sputa and feces, and food stuffs, especially meat, fruit, milk, etc., which they pollute by contact with their feet, and especially with their excretions. My experimental researches show the following:

1. Flies caught in the open air do not contain any acid-fast bacilli that could be mistaken for the bacillus of Koch.
2. Flies that have been fed on sputum evacuate considerable quantities of bacilli in their excretions. The bacilli appear six hours after ingestion of the sputum, and some may be found as long as five days later. These flies, therefore, have plenty of time to carry these bacilli to a great distance, and to contaminate food in houses apparently protected from contagion, because not inhabited by a consumptive.
3. Food polluted by flies have fed on sputum contains infective bacilli and produces tuberculosis in the guinea-pigs.
4. Flies readily absorb bacilli contained in dry dust.
5. Flies caught at random in a hospital ward produce tuberculosis in the guinea-pig.

Conclusions.—The sputum and feces of tuberculous subjects must be disinfected; flies should be destroyed as completely as possible; food-stuffs should be protected by means of covers made of wire gauze.

Diagnosis and Treatment of Early Cases of Tuberculosis.—Dr. Lawrence F. Flick, Philadelphia: Tuberculosis is primarily a lymphatic process; as such it can be diagnosed by reaction and enlargement. Diagnosis of lung tuberculosis in the first stage, before the destruction of tissue, is difficult. The process does not produce enough of a diseased condition to attract attention. It should be looked for in all persons

who have been exposed to contagion. The subjective symptoms in early tuberculosis of the lungs may be cough, hypersecretion of mucus, loss of appetite, malaise and hypersensitiveness of the nervous system. The objective symptoms may be rise of temperature, disturbance of pulse rate, and dilated pupils. The physical signs may be slight bronchovesicular breathing over the affected area, a pleuritic rub on expiration, increase in tactile fremitus and vocal resonance, slight bronchophony and impairment of resonance. The physical signs should be first looked for over the back over a circumscribed area. Tuberculosis is still early both in time and in prognosis, so long as it is limited to one lobe of one lung, or even to two lobes, provided there is not much destruction of tissue. In treatment the essentials of treatment are: Properly selected diet, fresh air and such medication as is necessary to restore the organism to its physiologic functions. When the disease is advanced more heroic treatment is necessary. Complete rest in bed should be insisted on for a certain period, comparative rest for a time longer, and after that the patient may be allowed carefully graduated exercise. In the early stage tuberculosis can be treated at home as successfully as in any climate. When proper discipline can not be enforced at home the patient should be sent to a sanatorium in the climate to which he has been accustomed.

Specific Curative Action of Tuberculin.—Dr. E. Meissen, Sanitätsrat, Hohenhonnef: It is not proven that tuberculin has a specific curative action. Neither animal experiments nor the results obtained in man justify such a conclusion. The bewildering mass of new tuberculins and the constantly growing number of methods of application are sufficient proof that the question is still open, and that further experiments are necessary. The patient must be kept under the most careful supervision during the treatment with tuberculin. This is possible only in hospitals and institutions, hence the method is not suitable for general practice.

In judging the value of the tuberculin tests, one must distinguish between tuberculous infection, i. e., the formation of small latent foci, which is exceedingly common even in healthy individuals, and tuberculous disease, which manifests itself by clinical symptoms in the lungs. The old subcutaneous tuberculin test after Koch is a delicate reagent, both for tuberculin infection and tuberculous disease. It is not without danger and is too delicate for clinical diagnosis in general, and should be employed only in cases in which the local reaction can be observed. Von Pirquet's cutaneous tuberculin test, which is very simple and free from danger, is hardly less sensitive than the subcutaneous reaction. In doubtful cases it is even less suitable for clinical diagnosis than the former. It is, however, of value in studying the spread of tuberculous infection, and confirms the results of pathology. The conjunctival test of Wolff-Eisner is safe if properly carried out. It appears to be of value in determining the prognosis; or in other words, judging the resistance of the tuberculous organism. Absence of reaction, or a very feeble reaction in the presence of manifest tuberculosis, is a bad prognostic sign; while a positive reaction very probably indicates that the organism is still capable of fighting the disease, and if supported by hygienic, dietetic, or climato-therapeutic measures, may gain the victory.

Purposes of Tuberculin.—Prof. F. Petruschky, Danzig: Dr. Koch's tuberculin and similar preparations are sterile metabolic products of the tubercle bacillus. They serve three important purposes: First, For early diagnosis of latent tuberculosis; second, for specific treatment of the first stages of the disease; third, to control the recovery. In Germany tuberculin as a means of diagnosis and treatment has been adopted by the great majority of tuberculosis specialists. The cutaneous test (Pirquet's) affords a welcome simplification of the specific diagnosis. We should try most systematically to diagnose and treat tuberculosis with the aid of tuberculin while it is still closed and produces no infectious excretions. All attempts to segregate and to treat patients already infected are too late. All attempts at prophylaxis without employment of the specific remedy are like the use of a fire-engine without hose.

Ocular Reaction in Tuberculin.—Dr. Fernand Arloing, Lyons, France, confined himself to a report of personal clinical and experimental facts:

The experimental facts, which show that a positive ocular reaction to tuberculin may be obtained in non-tuberculous subjects, accord with the clinical cases of positive reactions in non-tuberculous suffering from typhoid,, staphylococic, syphilitic or some other infection. To sum up, the ocular reaction is a convenient and easily available diagnostic procedure; it sometimes fails in patients who are certainly tuberculous; and on the other hand, may occur in subjects not suffering from a bacterial infection. Its diagnostic value, although considerable in practice, is nevertheless not absolute. The test is not always harmless. It has not proved itself superior to the bacillary serum agglutination, which has the advantage over the ocular test of being absolutely harmless, more constant and more delicate. Finally, the ocular reaction is an indication rather of the degree of intoxication of the organism, while the serum reaction reveals the forces available for defense against the infection.

Outdoor Treatment of Surgical Tuberculosis.—Dr. De Forest Willard, Philadelphia. Outdoor life night and day is as essential in the treatment of tuberculosis of bones and joints as in medical cases. Early diagnosis, with treatment by sunshine, fresh air, rest and proper mechanical and surgical procedures will prevent, and cure without deformity, a large majority of patients with joint diseases—25,000 doses of pure air in twenty-four hours are infinitely better than three doses of nauseous drugs that disturb digestion. Tubercle bacilli die in sunshine, but thrive in darkness, vitiated air and filth. They are inhibited by cold. Cold increases appetite, nutrition and circulation and encourages exercise and sleep,—color, weight, strength and hemoglobin increase. A change from seashore to mountain is desirable. It has been shown that 90 per cent. of joint cases come from the poorer classes. Surgical sanatoria and hospitals separate from pulmonary cases are needed. They should be so constructed that, by means of movable window sashes, the beds may be thrown either outdoors or indoors, thus giving when needed the advantages of a warm room for surgical dressings and needed care, while at the same time the aseptic conditions prevent fatal mixed infection. It is obvious that joint patients require level ground for use of crutches. The housing of patients in tents has been found unsatisfactory, the tents being hot in summer and cold in winter. I advocate the building of

roomy porches for beds, connected with private rooms or with hospital wards, open in summer and glass inclosed in winter. The windows should be large. There should be wheeled litters, screens, awnings, roof gardens. Portable cottages, day camps near cities and forest schools for patients with hereditary tendencies should also be considered. There should be protection from cold. Newspapers should be placed under the mattress, and there should be plenty of clothing. Good food is essential. Great care is necessary in the selection of a situation. Many country houses are most insanitary. Tuberculosis of kidney, pelvis or viscera require the same treatment.

New Methods of Early Diagnosis of Tuberculosis.—Dr. A. Calmette, of Lille, France: Clinicians and investigators should direct their efforts toward increasing the number and effectiveness of the means of information about the disease. Persons with latent inherited lesions are extremely liable to subsequent reinfection, but successive reinfections, apparently increase the resistance of tuberculosis subjects, because the disease progresses more slowly. Every reinfection, however, diminishes the resisting power of the organism according to the intensity of the attack. The presence of Koch's bacillus can not be regarded as an early sign of tuberculosis; therefore, clinical means of examination should be cultivated and perfected. Among the clinical signs which should be sought for are: Instability of temperature, symmetry of the respiratory movement, pretuberculous albuminuria of Teissier, the albuminuria of Ott, blister test of Roge and Josue, Robin and Binet's test of measuring the gaseous interchanges, Ehrlich's diazo reaction, pneumography after Hirtz and Brouardel, and radioscopy and radiography. The agglutination test of Arloing and Courmont must also be considered, but tuberculin is the most reliable, particularly the skin method instituted by von Pirquet, of Vienna, and the ocular tuberculin reaction instituted by Wolff-Eissner and myself in May and June, 1907. The latter is positive in at least 93 per cent. of all cases diagnosed clinically and it will show that 10 to 15 per cent. of all persons supposed to be perfectly healthy have tuberculous lesions.

THE DISINFECTION OF INFECTIOUS EVACUATIONS FROM THE BOWEL—Kaiser (*Archiv. f. Hygiene*, Vol. 60, H. 2, 1907). Upon the basis of his extensive experimentation with cultures of the colon bacillus, the author arrives at the following conclusions:

1. The customary rules for the disinfection of faecal matter in the bed-pan apply exclusively to diarrhœic stools, and are insufficient in regard to solid fæces.
2. The deep action of a 10 per cent. solution of cresol soap and a 20 per cent. solution of calcium chloride, upon solid faecal matter, remains very slight even after prolonged reaction.
3. The frequent appearance of solid stools (one-fifth to one-third of all cases of typhoid fever) necessitates distinct specification in the various rules for disinfection, instructive pamphlets, etc., with a proper modification of the rule intended for diarrhœic stools.
4. Caustic soda, in a 15 per cent. solution, has a considerably greater

deep action than the above-named agents, but it can be employed in certain special cases only.

5. In a general way, a 10 per cent. cresol-soap solution will have to be employed, but the duration of its action upon solid stools will have to be extended considerably beyond the time of two hours, as stated in the rules of disinfection now in use.—*Med. Rev. of Reviews*.

MALIGNANT SYPHILIS.—Rost (*Dermatolog. Zeitschr.*, 1908, 5 and 6). The writer describes six cases of malignant syphilis, and then discusses the clinical features and treatment of the disease. In one of the cases an ulcer of the throat produced a fatal hæmorrhage through erosion of the superior thyroid artery. In three cases it was impossible to demonstrate the spirochæta in the lesions of the skin and mucous membranes. This agrees with Hoffmann's experience that in typical ulcerations of malignant syphilis the spirochæta either cannot be found or at least is present in very small numbers. In one case the glands were scarcely able to be felt, agreeing with claims of some authors that in malignant syphilis glandular swelling is markedly slight. In three cases there were joint manifestations, involving in one case nearly all the joints and lasting for years. The changes appeared to affect the capsule of the joints, and no great disturbance of function was noted.

Brain symptoms, such as headache, depression, sleeplessness, deafness, numbness, etc., were present in two cases. These manifestations the writer considers to be due not to destructive processes in the brain, but to the result of action of toxins.

Lumbar puncture, made during severe cerebral symptoms in one case, showed that the pressure in the brain was not increased, and that the cerebrospinal fluid contained neither leucocytes, spirochætæ nor bacteria. If the brain symptoms had been due to lesions instead of toxæmia, the cerebrospinal fluid, the writer thinks, would have shown some pathological change.

For the local treatment of ulcerating syphilis the writer advises warm compresses of a 1 per cent. solution of bichloride of mercury. Bier's hyperæmic treatment also is to be recommended, excellent results being had in one case from this method. The opinion that mercury fails to cure or even actually aggravates malignant syphilis is not subscribed to by the writer. He considers the choice of the mercurial preparation and the length of time for its employment to be a matter of great importance. The soluble preparations are not very powerful. The "Hirsch injection" and "Hydrargyrum colloïdale" failed to give good results. Large doses of unguentum cinereum are very efficacious when the condition of the skin admits of their employment. The insoluble preparations are to be recommended above all others. The salicylate of mercury is especially useful in the beginning of the treatment to ascertain the patient's reaction to the drug and later for after-treatment. Calomel injections are, however, the best, and are productive of excellent results in the severest cases.—*Med. Rev. of Reviews*.

THE SERUM TREATMENT OF MENINGITIS.—Flexner's antimeningitis

serum has been in use for epidemic cerebrospinal fever now for one year. A final opinion of its value as a therapeutic measure must be reserved until the number of cases in which it has been used is very large.

Of the thirty-three patients treated simply by lumbar punctures in the previous years of the hospital, twenty-one died and twelve recovered, a mortality of 64 per cent. The mortality for the individual years has varied from 43 per cent. to 100 per cent.

With this may be compared a mortality of 14 per cent. for the twenty-one cases treated with the antimeningitis serum in the past five months. Three of the twenty-one patients have died. One of the three was a fulminant case, in the class regarded by Flexner as beyond the reach of treatment. The second had a complicating bronchopneumonia of both lungs on admission and died in forty-eight hours. The third was a boy 29 months old who received his first injection of serum on the fourteenth day of the disease, when he was unconscious, having convulsions, and practically in extremis. He died of a respiratory paralysis in seventy-two hours; even in his case two injections of serum had succeeded in clearing the spinal fluid of organisms and giving sterile cultures.

It has been our rule to do a lumbar puncture as early as possible in every case with symptoms suggesting meningitis, and to inject serum, giving the patient the benefit of the doubt. By this routine one patient with pneumonia, one with typhoid fever, two with pneumo-coccal meningitis, one with influenzal meningitis, and six with tuberculous meningitis have received serum. In no one of these cases has any bad effect resulted.

The serum has been injected by a syringe connected with the lumbar puncture needle. In most cases as much serum has been injected as spinal fluid removed, not exceeding 30 c.c.; following the suggestion of Dr. Flexner. But in twelve instances, because of the severity of the symptoms and the height of the temperature—in fact, because we thought it was needed—the amount of serum injected has exceeded that of the spinal fluid removed. Strangely, notwithstanding this fact, the so-called pressure signs and symptoms have been relieved by this treatment.

Many of the patients are temporarily upset by the puncture and injection. They complain of pain in the knees, hips and about rectum during the injection, evidently referred pains from the lumbosacral roots. These sometimes persist several hours. A slight temporary rise in temperature often follows the injection. Urticaria and erythematous eruptions are not uncommon.

It has taken from twelve hours to three days to reap the benefit from the serum. All favorable cases react to a certain extent after one injection. Some cases need but the one injection. Two cases have required six injections and one seven. We believe the serum should be given daily until the drop in temperature and the disappearance of symptoms and signs indicate that the process is arrested. And it should be renewed at any sign of flare-up.

1. The effect on the temperature has been to cause a fall in one of two ways—either abruptly or by lysis. Eight cases terminated abruptly

and eight by lysis. In the other five the temperature remained elevated—in two due to complicating pneumonia. The other three were fatal. One case remained normal in temperature after a single injection, but the majority showed a rise the next day and required from two to six injections to preserve a normal temperature.

2. With the fall of temperature, in three to twelve hours after the first injection, the *symptoms and signs* begin to clear. The symptoms—delirium, headache, pain in the neck and back, and the general hyperesthesia—disappear with remarkable rapidity. The signs—strabismus, stiffness of the neck, retracted head, opisthotonos, and the Kernig sign—are more persistent. The Kernig is often the last sign to disappear. The result is the unusual picture of a child, bright, cheerful and alive to its surroundings, but with a stiff neck and back, occasionally in opisthotonos.

3. The effect of the serum on the *spinal fluid* itself is exceedingly interesting. Three changes are brought about:

First, the polymorphonuclear leucocytes are increased in the spinal fluid. This is only after the first injection, and they disappear in the process of healing. From 200 cells to the cubic millimeter they have been increased to as many as 4,000. The influence of this on the leucocytes in the circulating blood is striking. A high leucocytosis, 30,000 to 40,000, is reduced by the demand in the spinal fluid; a low one, 16,000 to 18,000, is increased. In every case there is a very constant, positive chemotaxis for polymorphonuclear leucocytes in the spinal fluid. This has been observed in one case of influenzal meningitis. In six cases of tuberculous meningitis the clear spinal fluid with predominating small mononuclear cells has become clouded with polymorphonuclears after serum, and the small mononuclear cells have totally disappeared. The serum caused no evident change in the two cases of pneumococcal meningitis.

Second, the meningococci, both extracellular and intracellular before serum, become entirely intracellular, so that it is often difficult to find organisms outside of cells in specimens after serum. This was observed also in one case of tuberculous meningitis and in the influenzal meningitis.

Third, as they become intracellular they are being destroyed. They no longer stain deeply and distinctly, but are ill-defined and hard to see. They resemble granules rather than clear-cut diplococci. This is evidenced by the cultures. The number of colonies from approximately the same amount of centrifugalized sediment are reduced from 200 to 300 down to 8 or 10 after one injection of serum. Most cultures have been sterile after two injections, several after one.

CONCLUSIONS.

In conclusion, from this small experience, we may briefly summarize our impressions as follows:

1. All cases of meningitis in which meningococcus infection is suspected should undergo lumbar puncture and serum injection as early as possible.

2. The serum does no harm in cases not of the meningococcal type. It may do good.

3. The course of the disease is changed by the serum. The long drawn-out chronic cases are not seen, and the terrible sequelæ—often worse than death—are rare.

4. As to the character of the serum, the rapidity with which signs and symptoms disappear suggest an antitoxic property; the positive chemotaxis for polymorphonuclear leucocytes, and the promoted phagocytosis are most definite and constant features; finally, the reduction in the number of diplococci, the change in their staining properties, and the loss of viability speak for a bactericidal power—although it is a question if this may not be explained by the phagocytosis.—Frank J. Sladen, *Jour. A. M. A.*, Oct 17, 1908.

SOME REMARKS ON THE PREVENTION OF APPENDICITIS.—Tyson, in *The London Lancet*, regards the *b. coli communis* as usually the true causative factor of appendicitis, but requiring some morbid condition of the appendix to set up its action. Ordinary catarrh is common, as seen in changes found post mortem; it probably generally gives no symptoms. Constipation, diarrhea and obstructed or congested bowels cause the morbid change. There seems to have been a great change in the character of appendicitis, as indicated by change in treatment. Formerly most cases were treated medically; though some have required from the start surgical intervention; of late medical or preventive treatment has been ignored, all cases being regarded as surgical from the outset. It is difficult to induce the lay public to take preventive measures while well, against a disease which they have not individually experienced.

Constipation is the most prominent cause of appendicitis, the accumulation of fecal masses may be present even with an existing diarrhea. Oral sepsis is a marked factor and the writer urges the dental profession to devise some means to prevent decay of the teeth, in addition to filling cavities. Defective masticating teeth lead people to swallow food in lumps which are not well digested, go on to the cecum and, lying there, ferment; the artificial soft foods so much used of late lead to insufficient mastication, imperfect digestion, intestinal irritation and inflammation. Alcoholism, excessive, rapid and unnatural eating, lack of rest after eating, and lack of exercise, in the wearing of stays, and wrong methods of stooling are important factors in constipation. The writer believes that the primitive method of stooling, squatting over one's heels, with the thighs protecting the inguinal and femoral rings, permits more thorough evacuation of the bowels, and he commends the new styles of closet appliance which favor this attitude.

Iced foods, meat, fish, game are condemned, but the writer sees no way to avoid their use under present conditions. Defective knowledge of cookery among the masses of the people is deplored. The writer refers to the vast number of medicinal waters known and used throughout Europe for many centuries, and expresses his belief that the thorough washing inside and out, which people get at these water cures is of vast importance in promoting health in general and avoiding the causes of appendicitis in particular.—*Charlotte Med. Jour.*

EXAMINATION OF STOMACH CONTENTS.—Boas (*British Medical Journal*) finds that in spite of the simplicity of the method and the practical usefulness, many practitioners have introduced various modifications which lead to error.

The original details were as follows: The patient should receive into an empty stomach one roll of white bread of about 35 grammes weight, and 400 grammes of water, or about 400 grammes of tea without milk or sugar, and after one hour the contents of the organ are regained by the tube and examined. In many publications considerable variations, both as to the quantity of the bread and fluid, and also as to the times after which the breakfast is to be regained, are given under the misnomer of Ewald's breakfast. First, he deals with the importance of an empty stomach. This does not mean only during fasting, but the actual absence of all remains of food must be determined. In estimating the quantity of total acidity, it is obviously impossible if remainders of yesterday's meal are in the organ, since one has no idea of their chemical composition. Even for the measuring of free hydrochloric acid emptiness of the stomach is important. It is, therefore, necessary to pass the stomach tube before the breakfast to control this point. The importance of prescribing an exact quantity of the constituents of the meal, in estimating the quantity of acid, is clear without further explanation. The time during which the food is left in the stomach to digest is of utmost importance if one wishes to derive useful results.

It is scarcely necessary to point out that the breakfast must be given in the morning, and not during the course of the day, but some clinicians appear to be in the habit of even making this error. Turning to an error which is of considerable importance, he says that in certain individuals the secreted hydrochloric acid varies within wide limits, and at times a trial breakfast may bring to light a very high value. In order to avoid drawing conclusions from such a variation, Ewald has insisted that unless the result of the test leads to a typical conclusion, it is necessary to repeat it before making a diagnosis. In order to ascertain clearly the condition of the stomach he finds it wise to test the evacuation not only for HCl and lactic acid, but also for the presence of peptic and rennet ferment. This estimation should be carried out quantitatively. But when the gastric contents include blood, bile, mucus, or saliva, the quantitative analysis for acid is not reliable. Only when positive results as far as HCl is concerned are obtained may deductions be made in this case. Lastly, he deals briefly with the question of the increase of the gastric juice in the cases of disturbances of the motor function of the organ.—*Charlotte Med. Jour.*

MEDICINAL TREATMENT OF EXOPHTHALMIC GOITER.—Halbert is decidedly optimistic as to the results of treatment of exophthalmic goiter, and epitomizes the medicinal management of the disease as follows:

"Our first aim should be to reduce the extreme cardiac excitement without depressing the heart's action. In the early stages this is usually done by *crategus*, *adonis vernalis* or *convallaria*, in five to ten or fifteen drop doses of the tincture. *Digitalis* should *never* be used. Later, remedies which affect the deeper tissues should be employed and in this w must

give consideration to the iodide principles; *iodine*, *spongia*, *kali iodide*, *iodalbin*, *thyro-iodine* and other iodide preparations may be given with much relief to the cardiac tone. *Arsenic* may to a great extent supplant this, but we cannot obtain results except by a long continued use of the remedy if it is indicated. Chasing after inter-current symptoms is only a waste of time. One of the best iodide remedies is *fucus vesiculosus* and this I use with most persistency; its efficacy is due no doubt to its iodine principle and apparently it is most easily absorbed and gives no ill effects so that it may be and should be continued for some time. Teaspoonful doses three or four times daily usually give better results than smaller doses; often it is necessary to give larger and more frequent doses; apparently we have no proving of this remedy and its action is inferred only by our knowledge of our other iodine remedies; but its value cannot be disputed, as it helps the trophoneurosis.

"*Lycopus* comes next under our consideration, and this more nearly approaches the symptomatology of the general nervous disturbance and hence it is serviceable after these previously mentioned remedies have given support to the heart's action. The cardinal symptoms of goitre and exophthalmos are now well established; the vasomotor weakness gives rise to constant sweating, the surfaces are cold, polyuria, diarrhea, vomiting, lachrymation, conjunctivitis, orbital headaches, cough, glycosuria and itching of the skin are all now in evidence and no remedy meets this general status better than *lycopus*; but this, too, must be given for a long time, for it is applicable to the general nervous impairment which does not promptly respond to treatment. It is possible that a potency may be available when this remedy is demanded."—*Medical Counselor*, August, 1908.

THE STOOLS OF INFANTS IN DIARRHEAL AFFECTIONS.—KNOX, (*Jour. A. M. A.*), gives the following summary of the findings of 100 fatal cases of diarrheal disorders:

1. Mucus is evident to the naked eye in a large percentage of diarrheal stools of infancy. Its absence renders the presence of serious intestinal lesion improbable. Mucus in large amounts may be found in the stools in all intestinal disorders, but the proportion of cases with extensive intestinal alteration is greater when the quantity of mucus is in considerable excess.

2. The appearance of blood in the diarrheal dejecta of infants suggests an alteration of the intestinal mucosa in proportion to the amount of blood present. On the other hand, extensive changes may occur in the bowel wall without the macroscopic presence of blood in the discharges.

3. In like manner the presence of pus in the diarrheal stools of infants indicates, according to its quantity, alteration in the mucosa, particularly in that of the large bowel. The failure, however, to detect pus in the stools with the naked eye does not preclude the possibility of extensive intestinal lesion.

4. Blood and pus are more frequently found in diarrheal movements in the middle half of infancy, and these elements at this time form a correspondingly more reliable index of the conditions of intestinal mucosa.

5. Blood and pus rarely appear in the diarrheal discharges of infants before the beginning of the second week of their illness. They are more

frequently found from the third to the sixth or eighth week, and are usually absent after this period, when the illness, if it continues, may assume a marantic character.

6. Blood and pus are often found mingled in the same stool. Less often blood appears alone, and still less frequently is pus noted in the dejecta of infants who have not passed blood. The presence of these elements indicates the probability of thickening and infiltration or of ulceration of the mucosa of the small, but more certainly of the large intestine.

SODIUM CITRATE IN THE GASTRO-INTESTINAL AFFECTIONS OF INFANTS.—Miserocchi (*Gazz. degli Orpedali*, No. 30, 1907). In conformity with the recommendations of English and French clinicians, the author employed sodium citrate in the treatment of the gastro-intestinal affections of infancy. The remedy was prescribed for altogether 67 children, between 1 and 13 months of age, including 6 breast-fed babies, 42 with artificial nourishment and 19 who received mixed food. Among these children 17 suffered from gastric dyspepsia, 36 from gastro-intestinal dyspepsia, 9 from acute gastro-enteritis and 5 from malnutrition. The breast-fed infants were given, immediately after nursing, a tablespoonful of a solution of 5.0 natr. citr. in 300.0 sweetened and sterilized water. In the cases of artificial nutrition the solution was added directly to the milk. An attempt was made in the case of 9 infants to administer the citrate without regulating the diet, but in these the improvement in regard to the vomiting and the stools was very inconsiderable. In the remaining 58 cases the necessary hygienic and dietetic restrictions were applied, together with the administration of sodium citrate, with very favorable results in 40 cases. No special effect of the citrate could be demonstrated in the remaining 18 cases. The remedy had a very prompt action in dyspepsia and malnutrition; the vomiting subsided after a day or two, the stools became normal and the meteorism disappeared. The effect was not nearly as prompt in gastroenteritic disease. In a general way the action of the remedy is regarded as very favorable by the author, especially because sodium citrate is entirely harmless.—*Med. Rev. of Reviews*.

AMAUROSIS DUE TO FELIX MAS.—In a summary of the cases reported in literature of poisoning by the rhizoma felicis, it is shown by Neiden that in 81 intoxications 12 deaths followed, 19 cases developed permanent bilateral blindness and 15 cases unilateral blindness; 9 cases permanent diminution of the vision of both eyes, and 4 cases unilateral permanent visual diminution, and 2 cases temporary diminution of the vision. Neiden himself observed in 3686 cases 3 cases of permanent blindness.

The causative factor of the toxemia is apparently unknown as the dosage, health and age of the individual, previous to illness, etc., have been different in each case. The author reports a case occurring in a miner of apparently good health, just returning from military duty. He was given 10 grams extract Felix Mas (Mercks), September 30th, and a second similar dose on October 2nd, followed by calomel and jalap.

On October 3rd the patient complained of a mist before his eyes and reduction in visual acuity. Seven hours later the conjunctivas were light

yellow, the pupils vividly dilated and immobile. There was no light perception. The retinal veins were dilated and the arteries contracted. On October 4th, the disk edges were indistinct, the papilla slightly swollen, the veins being dilated and the arteries very narrow; slight edema of the retina. The patient complained of general weakness.

Later the macula lutea showed the following changes: In place of the foveal reflex there was a homogeneous pale red surface, upon which were placed fine light punctate spots. Above and below there was a peculiar striping in the peripheral third of the macula. The thin stripes were parallel and separated by the width of a main branch of the central artery. The author believes them to be due to a folding of the internal limiting membrane, caused by the edema.

In spite of treatment, the right eye remained blind, the left eye having 1-200 of normal vision. The author calls attention to the fact that in this case a strong man, who had not previously undergone any debilitating cures, was affected. He had undergone a similar treatment for tapeworm previously without harm, showing no idiosyncrasy. Light perception in the left eye returned after a lapse of 14 days, beginning in the periphery.—Dr. Schoening, *Annals of Ophthalmal.*

WILLIAM SPENCER, M. D.

THE INSTILLATION OF TUBERCULIN INTO THE EYE—The author reviews the history of optharmo-reaction, and claims for Wolff-Eisner, of Berlin, priority in this reaction over Calmette. The test has been found to be a fairly reliable one, but is not without danger to the eye. He reports the following case: On November 6, 1907, a colleague made the test on the right eye of a man who three years before had coughed up half a tablespoonful of clear red blood. One year later there was a slight affection of the right apex; otherwise patient was and had been in the best of health. The reaction in the eye had not subsided by November 29th. There were phlegtenulæ and considerable redness of the conjunctiva of the nasal side. The phlegtenulæ healed, but on December 24th, a new one appeared. They always appeared on the reddened area. On January 11, 1908, an ulcer appeared on the corneal-scleral margin, extending centrally over the cornea. Cirenæ corneal injection and iritic irritation. This and similar cases should make the oculist careful about using the reaction.—Dr. Ernest Fischer, *Annals of Ophthalmal.*

WILLIAM SPENCER, M. D.

PLACENTAL TRANSMISSION OF BACILLUS TYPHOSUS.—Cohoe (Baltimore) reports a case of typhoid fever in a woman three and a half months pregnant who aborted and discharged the fetus enclosed within the intact membranes, thus giving an excellent opportunity for bacterial examination. Typhoid bacilli were found in the amniotic fluid, the heart's blood, the spleen, and umbilical vessels. In commenting upon the subject Cohoe says while the fetus may become infected during the course of maternal typhoid fever, yet such infection does not invariably result. In a number of cases it was not possible to demonstrate typhoid bacilli in the

fetal viscera. Lynch, who carefully studied the subject recently, concludes that while the typhoid bacillus may pass from the mother to the child in utero, placental transmission is not the rule, and that in cases where such transmission does occur, there are generally placental lesions of a hemorrhagic type; also, there is no evidence that the fetus may survive the infection in utero. It is generally conceded that an infection of the fetus takes place only through the medium of an injured placenta. Such injury may exist prior to the disease, or may result during the course of the disease from the actions of the toxins in the circulating blood of the mother.—*Amer. Jr. Obs.* Vol. 57, 789.

THEODORE J. GRAMM, M. D.

THE PATHOGENESIS OF ECLAMPSIA.—Dienst makes a preliminary report of some conclusions, the underlying facts of which he intends to publish later. He believes that eclampsia is induced by an overwhelming of the circulatory system by fibrin. This dissemination of fibrin induces circulatory derangements with thromboses and consequent necroses in parenchymatous organs, especially in the liver, so that the latter is impaired in its function of destroying toxic substances in the system, and, therefore, these appear in the circulating blood. The formation of an abnormal amount of fibrin in the blood in eclampsia may arise from an excess of the fibrin generators, namely the fibrinogen and the fibrin ferment, and because in most cases there is at the same time a large amount of salt retained in the blood preceding the eclampsia, which normally does not occur. Without the presence of a large quantity of salt, even when the elements of fibrin are abundantly present, the formation of large quantities of fibrin as in eclampsia, is not possible. In the convulsive stage of eclampsia fibrinogen is actually increased as compared with normal pregnancy and particularly with the non-pregnant state, as has been proven at the University of Breslau. An excessive amount of fibrin ferment also exists. Both these substances are formed from a great hyperleucocytosis associated with pregnancy and especially with eclampsia as a physiological product of the destruction of leucocytes. Furthermore, there are reasons for regarding the great leucocytosis existing in every one of 20 cases of eclampsia examined, not as a primary leucocytosis but mostly as a secondary condition induced by impaired discharge of used-up leucocytes. The sudden flooding of the blood with used-up leucocytes and the products of their destruction, especially with fibrin ferment, explains the instant formation of fibrin when the two formative elements meet, and also explains the relatively sudden and unexpected occurrence of eclampsia, specially since, mostly unnoticed, a further favorable condition, and one not to be underestimated, namely, an abnormally large collection of salt in the blood, may arise. Such a condition is induced by the fibrinogen injuring the endothelium of the kidney vessels, so that the water cannot be discharged from the organism in requisite quantity. An abnormal retention of water must result in the organism producing a condition of hydraemia, and with it a retention of salt in the blood, or in other words, inducing a condition associated with so-called kidney of pregnancy.—*Zentralbl. f. Gyn.*, 1908, 826.

THEODORE J. GRAMM, M. D.

THE SURGICAL TREATMENT OF THROMBO-PHELETIC FORM OF PUERPERAL INFECTION.—Guicciardi (Florence). Two operations come into account, namely removal of the uterus and extirpation or ligature of the thrombosed veins. Twenty-two cases are referred to, of which seventeen were operated; five cases not operated died. The diagnosis of this condition is established by the rapid pulse, which persists even during the intervals between the chills and when the temperature falls to normal; by the chills, which are, to a certain extent, an index for the prognosis; by the temperature curve characteristic of pyæmia; by the general condition of the patient, relative euphoria on the day when fever is absent, fibrillar muscular twitchings, earthy color, pains in the lower abdomen, and by bimanual palpation of the thrombosed veins. The usual obstetric or medicinal treatment is useless in most cases: while surgical treatment is decidedly to be recommended. Vaginal hysterectomy is not advocated; abdominal hysterectomy is limited to those few cases complicated with internal involvement as from abscesses of the uterine wall, retained membranes, etc.; while on the other hand the author warmly advocates resection or ligature of the thrombosed veins. This operation must not be used as a last resort; the author has found the best time to be the 20th day of the puerperium.—*Abstr. in Zentralbl. f. Gyn.* 1908, 865.

THEODORE J. GRAMM, M. D.

ACUTE PERITONITIS PRECEDING LABOR.—G. Leopold, (Dresden), reports a fatal case, rather rare, but yet instructive since it displays the possibility of a fatal termination from infection before labor. A pregnant woman was admitted to the clinic two days after having had the first chill. This was followed by severe abdominal pain, tympanitis, and vomiting; temperature 103.2, pulse 120; vaginitis; condylomata; acrid leucorrhœa. Labor was induced by rupturing the membranes, and at this time the amniotic fluid was found to be greenish yellow, but the delivery was spontaneous and easy. A few hours after delivery the woman died. The section revealed peritonitis combined with right sided parametritis, fibrinous pleuritis and septic spleen. In the uterine wall a diffuse phlegmon was found extending into the right parametrium. Streptococci abundant. In commenting upon the case the author calls attention to the great likelihood of gonorrhœal infection in the last weeks of pregnancy; the existence of a parametric abscess even before labor with intact membranes and closed cervix; the rapid occurrence of peritonitis from the parametritis; the rapid delivery although the uterus and its vessels were diffusely invaded with streptococci. The case also exemplifies the occurrence of infection before labor of cases dying within a day or two after delivery.—*Zentralbl. f. Gyn.* 1908, 905.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

THUJA: ITS VALUE DEPENDS UPON ITS RELIABILITY.—Dr. Thomas S. Stewart reports an experience in which an ordinary tincture of *thuja* purchased from a drug store, failed utterly in the treatment of an elderly patient with papilloma of the larynx, while a preparation purchased from a well-known reliable house effected a cure. The tincture was given in three drop doses six times daily. Improvement resulted in one month; the use of the voice was regained in a few months, and the patient resumed his business.—*Eclectic Medical Journal*, October, 1908.

REMEDIES IN TYPHOID FEVER.—A paper on the treatment of typhoid fever by an Eclectic physician, Dr. W. C. Miller, of Belmore, Ohio, is of interest as showing the practice of Eclectics concerning the administration of remedies in this disease. *Gelsemium* often finds a very important place in typhoid treatment for the bright eyes, flushed cheek and restlessness. The physician must not expect symptoms indicating the drug will disappear by magic and at once. On the contrary, physicians must rest satisfied with continued use of the drug, and the production of rest for from four to six hours out of the twenty-four.

Hyoscyamus for the pale, trembling patient when the limbs quiver "like a flag in the breeze."

Belladonna for the pallid, cold skin, inclined to moisture, dilated pupils, tendency to coma, etc.

Sulphite of soda when indicated given in capsules of one to two grains, if the patient is rational and can swallow well; if not, give in solution.

Hydrochloric acid when the tongue is dry, brown, parched and fissured, enough in a half glass of water to make it pleasantly sour.

Many other remedies, as *ippecacuanha*, *rhux tox.*, *bryonia*, *phytolacca*, *xanthoxylon*, *asafoetida*, *sulphurous acid*, *sulphopcarbolates*, the *bromides* and many others which the keen observer will know when indicated and so use them.

Echinacea, two to four drachms of the tincture to half a glass of water, and *baptisia* in another glass half full of water form the basic treatment of typhoid fever to be used from the beginning to the end, and is a solid

foundation upon which to place other indicated remedies, using teaspoonful doses alternately every hour.—*Eclectic Medical Journal*, October, 1908.

THE FEVER OF FERRUM PHOSPHORICUM.—The ferrum phosphoricum fever seems to stand between that of *belladonna* and *gelsemium*; not so much cerebral excitement, not so tense a pulse as has the belladonna patient; not so great stupor nor so flabby a compressible pulse as the gelsemium patient. Ferrum phosphoricum is the aconite of the biochemical pharmacopœia, Schussler giving it at the beginning in all congestions and fever; in short, for all blood distributive anomalies.

It is certainly preferable to all other fever remedies in the typical ferrum phosphoricum patient, who is erethistic, anaemic, flabby, flushing on motion or emotion. It is sometimes preferable to either gelsemium or baptisia in the beginning of typhoid fever, especially when the patient is distressed by severe congestive headaches.—Dr. A. L. Monroe in the *Medical Century*, October, 1908.

SPHERE OF UTILITY OF CALCAREA PHOSPHORICA.—Calcarea phosphorica is indicated in all forms of wasting diseases and defective assimilation. This makes it important as supplementary to other salts in the treatment of cholera infantum, tuberculosis, and persistent anaemia. It is generally necessary to supplement its work with *ferrum phosphoricum*, *kali phosphoricum* and intercurrent doses of *natrum muriaticum*. It is an essential agent in the treatment of rachitis, Potts' disease, delayed dentition, defective teeth, and all forms of imperfect osseous growth or development.

The calcarea phosphorica child is emaciated; its neck is so weak that it cannot hold up its head and it craves salt meat.

In the successful treatment of chronic anaemia or chlorosis of young girls, it is a pre-essential to ferrum phosphoricum.—*Ibid.*

CLINICAL USES OF KALI PHOSPHORICUM.—The clinical use of this drug has been entirely developed from its biochemical properties. It is indicated in diseases in which there seems to be a failure of inhibition,—a failure somewhere in the thought centres or their distribution. The author has found it useful in the following clinical conditions:

After acute disease, when the ordeal has seemed to cripple brain and nervous system or either one. The patient may be silly and unable to fix the mind on anything for any length of time. Exhausted after reading or being read to, or after company. Nervous weakness after acute diseases; patient is shaking and tremulous, knees giving out under him. Also nervous exhaustion or brain fag after severe ordeals, night watching, emotional storms. Physicians who are depressed and tired after doing a heavy practice throughout a busy season.

The mental symptoms are very much like those of *ignatia* without the secretiveness or spasmodic tendencies of that remedy.

In acute diseases, when the patient is apathetic, hopeless or indifferent; especially useful in typhoid states or typhoid fever with the above mental state and the dry brown tongue; foetid breath, great debility, tympanites.

Acute indigestion with flatulence, foetid secretions, and great mental and nervous depression.

It may also be recommended in a form of backache, a paretic state, something like that of causticum.—*Ibid.*

MAGNESIA PHOSPHORICA AS A PAIN REMEDY.—Magnesia phosphorica is the basic tissue salt of acute pain of a non-inflammatory basis. Thus by administering it between the menstrual periods it will greatly relieve or modify or cure or render more amenable to other treatment spasmodic or neuralgic dysmenorrhœa. So by giving it constantly as an intercurrent while giving other well indicated drugs, it seems to materially assist in overcoming persistent neuralgic attacks and the tendency to them. The quick relief under its action is so wonderful sometimes that patients insist that morphia has been administered.—*Ibid.*

MAGNESIA PHOSPHORICA IN SPASMODIC PAINS.—Especially involving the involuntary nervous system, these pains are severe and excruciating, especially cramp, colics with great intestinal distention or dysmenorrhœa, making the patient cry out. These pains are somewhat relieved by heat and pressure, showing them to be neuralgic and with no inflammatory complication.—*Ibid.*

MAGNESIA PHOSPHORICA IN NEURALGIC PAINS.—Magnesia phosphorica is also useful in severe soothing pains, running along the course of the nerves, such pains as would suggest *spigelia* or *colocynth*; indeed, the pains of magnesia phosphorica are like those of colocynth throughout with the same modalities.—*Ibid.*

MAGNESIA PHOSPHORICA IN SPASMS.—Besides its power over pains, magnesia phosphorica may be used in overcoming spasmodic troubles, which may not be characterized by severe pain, such as twitching of eyelids or other spasmodic twitchings involving single muscles. Also the paroxysms of whooping cough or the tendency to convulsive seizures. Children who have spasms from slight causes.—*Ibid.*

ANALOGUES OF MAGNESIA PHOSPHORICA IN COLIC.—*Nux vomica* after over-eating.

Ipecacuanha after indigestible substances, raisins, orange peals; pains around navel as though grasped by hand; fermented-molasses like stools.

Veratrum album. Severe cramps with much sweat and gastric irritability.

Colocynth. After strong emotions; same modalities.

Dioscorea. Colic better bending backwards.

Chamomilla. Colic in teething children.

Magnesia carbonica. Colic with green, sour smelling stools.—*Ibid.*

ANALOGUES OF MAGNESIA PHOSPHORICA IN SPASMODIC DYSEMENORRHOEA.—*Platina*, *pulsatilla*, *nux vomica*, *cimicifuga*, *caulophyllum*, *xanthoxylum*, *cuprum*, and *belladonna*.—*Ibid.*

SILICEA IN SUPPURATION.—Scrofulous diathesis; inflammations of periosteum, bone, glands, and connective tissues. These inflammations are sometimes what are sometimes called cold abscesses, hard induration of glands, furuncles, etc., that neither suppurate nor get well. Suppuration of bone and periosteum; caries. Rachitis, Potts' disease, hip disease.—*Ibid.*

SILICEA HEADACHES.—Better wrapping up the head; these headaches, like those of *sepia*, are associated with marked hyperaesthesia and are worse from noise, light, cold or mental effort.—*Ibid.*

SILICEA IN CHOREA.—Monroe has found silica most useful in chorea with well marked sensorial hyperaesthesia in children whose bodies have grown too fast, or whose minds have been developed at the price of the body. The child is made worse by all efforts of mind and body.—*Ibid.*

SILICEA IN EPILEPSY.—With similar symptoms to those already mentioned. Unhealthy skin, every cut suppurates. (Also *hepar*, *petroleum*, *graphites*, and *psorinum*.)—*Ibid.*

SILICEA CONSTIPATION.—With weak expulsive power; stool comes part way out and then slips back.—*Ibid.*

CALCAREA SULPHURICA.—This drug is very similar in composition to *hepar*. It is useful in chronic suppuration with little tendency to resolution. The pyogenic membrane is thick and the pus lumpy.—*Ibid.*

CALCAREA FLUORICA.—This remedy is indicated in weakness of the elastic tissues, as those of the arteries, causing aneurysms, prolapsus of uterus with weakness of the round ligaments.—*Ibid.*

CONSTITUTION OF NATRUM SULPHURICUM.—The patient's tissues cannot stand wet weather; diseases are always worse with damp surroundings. Tendency to the formation of condylomata.—*Ibid.*

NATRUM SULPHURICUM IN DIARRHOEA.—Natrium sulphuricum is useful in chronic diarrhoeas. The stools come on in the morning after moving about; are bilious and contain much phlegm.—*Ibid.*

KALI SULPHURICUM.—Catarrhs with profuse thick yellow bland mucus. There are no provings of this drug. It is known only as a bio-chemic salt. Its symptoms are almost identical with those of *pulsatilla*, which is said to contain much potassium sulphate. Clinically, it should be preferred after *pulsatilla* has failed; if the discharge is unusually profuse and persistent; and if the catarrh becomes chronic.—*Ibid.*

KALI MURIATICUM.—This is Schüssler's agent for the treatment of all diseases where there is a tendency to the formation of false membrane. There is a tough, tenacious fibrous secretion, much like that of *kali bichromicum*, but even tougher and more fibrinous, seeming to lead

to organization. It is also used by many specialists in preference to other potassium salts when there are catarrhs of nose and throat, which tend to become chronic or produce thickening of membrane, especially catarrhs which cause thickening of the Schneiderian membrane and producing mouth breathing. The drug has been but little used excepting in diphtheria, membranous croup, and catarrhal trouble of the nose and throat.—*Ibid.*

HOMOEOPATHIC REMEDIES IN RHEUMATISM.—While many remedies are recommended in the treatment of various forms of so-called rheumatism, Dr. C. A. Pauly declares that but few are needed in the acute articular variety, if they are well selected. For the fever, we have *aconite* and *bryonia*, particularly when there are great restlessness, anxiety, thirst, full bounding pulse with high temperature in nervous and irritable plethoric individuals; the joints are swollen, red and exceedingly sensitive to contact. When endo- or pericarditis has supervened, aconite should be given in the first or second dilutions every hour. When aconite has exhausted its force, bryonia is nearly always the remedy to follow it.

Bryonia's field of action is unlimited; it is indicated in all forms of rheumatism and most of the complications, such as cardiac and in pleurisy and pneumonia. Bryonia attacks the joints and muscular tissue; the joints are greatly inflamed, dark red, swollen and very hot; the pain is sticking and tearing, worse from motion; the fever is high, tongue coated white; great thirst, bowels constipated. In muscular rheumatism, bryonia is indicated when the seat of the disease is in the muscles of the chest or trunk. The pains are tearing and inclined to shift from one place to another.

Belladonna.—High fever, hot, dry skin, thirst, throbbing headache, pulsation of the carotids; tearing, cutting pains deep in the bones, coming and going quickly; bright red shining swelling of the joints; pains worse at night and from motion and touch.

Rhus tox acts upon the fibrous tissues and the sheaths of muscles. It is indicated when there is violent fever with a tendency to typhoid delirium and great restlessness; the swelling of the joints is slight; the pains extend from the joints along the sheaths of the muscles. The pain forces the patient to move though motion does aggravate; there are soreness and stiffness; damp weather and exposure to cold aggravate; warm applications relieve.

Arsenicum.—Burning, stinging, tearing pains, with pale swelling of joints; restlessness; anxiety, especially at night; profuse sweat, which relieves the pain; the affected joint has to be moved frequently; applications of heat give relief.

Mercurius.—The fever runs high; the pulse is remarkably quick and hard; the perspiration is very copious, has a musty odor; thirst is annoying; local swelling not very great, but painful and intensely red; the breath is foul, the tongue has a thick yellow coating; the appetite is gone; every kind of food causes nausea; pains are worse at night, towards midnight. Aggravated by severe cold and relieved by warm applications. In muscular rheumatism, mercurius is indicated when the pains increase at night, and are deep seated as if the periosteum was

attacked, with great sensitiveness to pressure. It deserves a leading position in the complications of the vital organs, in cardiac inflammation, in pneumonia, pleurisy and meningitis.

Pulsatilla is indicated in both the acute and sub-acute forms; there is not much swelling or redness; the pains jump from joint to joint; the knees are usually the parts involved. There are gastric and liver disturbances.

Ledum has a place in the treatment of the smaller joints; *cimicifuga* and *phytolacca* the muscles; *spigelia* in the heart complications; and *ferum* for anaemia caused by the rheumatic attack.—*Transactions of the Homoeopathic Medical Society, of Ohio, 1908.*

AVENA SATIVA.—Dr. W. B. Carpenter, of Columbus, Ohio, in a paper dealing with a number of practical points, thus speaks of *avena sativa*: 'It is a splendid remedy in the functional depression and nervous exhaustion due to loss of sleep and over-indulgence. And it is especially indicated if such patient has become addicted to the use of morphine. The drug can be continued for a long period of time, if necessary, with no ill result whatever, provided the dose is not allowed to be increased so as to develop the physiological effect 'pain at the base of the brain.'

"In this remedy we have one of the best means of combatting the morphia habit, however acquired. You should think of *cannabis indica* if you find all the perceptions, sensations, and emotions intensely exaggerated. This drug is also pre-eminent for being able to cause the most extraordinary of all nervous conditions, catalepsy.—*Transactions of the Homoeopathic Medical Society, of the State of Ohio, 1908.*

LATHYRUS.—Dr. Carpenter recommends lathyrus as a remedy if not the best to help along recovery from wasting and exhausting diseases, e. g., la grippe, when there seems to be an unaccountably slow rejuvenation of nerve power.—*Ibid.*

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

RUMEX CRISPUS, (*Yellow dock*), one of our best remedies for the *dry, teasing cough of consumption*, contains a large amount of *iron*. The observations of Gilbert and Lereboullet have conclusively proven that the roots of this plant have the property of attracting or fixing the iron found in the soil, which is transformed in the plant into a loose combination of iron, and which accumulates in considerable quantity at the root on the level of the cambium. By regularly sprinkling the plant with *carbonate of iron*, we can increase its richness of iron. After proper cultivation, Saget found in the leaves and stems, more than 28 milligrammes in 100 grammes of the dry substance, and in the root, from 75 to 447 milligrammes. Finally, by an intense treatment, the quantity in the root may reach 1 gramme 50 ctgs. for 100 grammes of the substance.

Gilbert and Lereboullet have employed the powdered root added to

the daily alimentary ration (1 to 3 grammes); and in *chloro-anemia*, especially of *tuberculous subjects*, the results have been very favorable, improving greatly the general condition and bringing about important hematological modifications.

E. FORNIAS, M. D.

Strontium Bromide.—Are not all substances which serve man as food, or remedy, as well as those which accidentally enter the human organism, utilized by the organic cell, or rejected in some form or other through the excretory channels? Would not nutritive equilibrium be lost, and life imperiled if the withered glands and the crippled kidneys could not dispose of accumulated waste products? And yet we are advised by a Dr. Hitt (*Medical Times*, Oct., 1908), not to procrastinate in the dosage of a non-toxic product like *Strontium Bromide*. Non-toxic when pure, but even so, it has determined symptoms of *Bromism* when given in excessive doses.

And which are the prominent symptoms observed under its action? Headache, apathy, somnolence, impaired muscular power, dryness of the mouth, and anasthesia of the soft palate and pharynx. The skin is pale, the heart action feeble and the extremities cold. Nausea and vomiting are constant phenomena and fermentation and flatulence are often complained of, and sometimes there is diarrhœa. Catarrh of the bronchial tubes is common, as also loss of sexual power and appetite, with atrophy of the *mammæ* or testicles. In advanced cases the patient becomes much emaciated, and falls into a state bordering on imbecility. Even the acneiform eruption has been reported. Hence it is *homœopathic* to almost all the maladies in which the allopaths have recommended it.

But in securing this drug for our uses we should bear in mind, that the bitter, colorless needles form, in which this salt is offered to the market, are very soluble in water, and soluble in alcohol, and that when impure the salt contains *Barium* and gives a precipitate by the addition of a 10% solution of *Bichromate of Potassium*.

Moreover, should anyone be induced to employ massive doses of this drug, under the expectation of good results, let him consider the state of intoxication they may produce, and above all remember the *arterial hypertension*s such doses are capable of determining. Besides *Strontium Bromide*, like *Potassium Bromide*, is contraindicated in all *adynamic* and *asthenic states*, where its depressive effect would certainly create great danger.

Of course, those advocating this irrational mode of prescribing the remedy will tell you that while it partakes of the sedative and antispasmodic properties of the *Bromides*, it owns besides those of the *Strontia Salts*, which include analgesic effects and moderative influences on the secretions and *fermentations of the stomach*. It is, they say, eminently useful against *hyperchloxydria* and in cases of *abnormal abundant fermentations*, and that its favorable action on the renal epithelium should be sufficient to give it the preference in cases of *epithelial nephritis*.

But, take with discount these unwarrantable conclusions and let only *Similia* be your guide. Do not give doses which may imperil the integrity of the living cells. Compare the symptoms this drug is able to provoke

with the indications given by allopathic authorities and you will see that their claims are corroborative of *Similia*. Does not Dr. Hitt extol this remedy in the *vomiting of pregnancy*, and this whether a neurosis, a toxæmia, or whether of mechanical origin? Does he not further claim to have controlled, not the infantile spasms, but all subsequent nervous phenomena after the attack? And how about his recommendations of this salt in *gastric neuroses*, especially in neurasthenic subjects with tendency to excess of HCl. in the gastric juice (*Hyperchlorydria*).

Let us analyse the therapeutic ramblings of our opponents: Sajous (1893) states that Gubler found a dose of 6 grammes (1½ drachms) the maximum to be used, and Solier and Manguant made this amount the limit. Feré did not fear to administer from 12 to 15 grammes (3 to 3.5-6 drachms). So much for the French School. The German School, represented by Nothnagel and Rossbach, and Tappeiner and Penzolt, are no more conservative, they give 15 grammes as the maximal dose.

This is the manner in which the excretory cells are taxed by our inveterate carpers. How long will this remedy be in the ascendancy is difficult to tell, but the sooner it falls into disfavor the better for the encumbered organism, constantly kept engaged in getting rid of noxious material, and in protecting, with its own resources, the despoiled cells. And how, if the withered glands, the dormant skin, the atonic stomach and the torpid bowel refuses to do their healthful work, and the economy falls into a state of dangerous receptivity for hostile influences. No wonder tuberculosis is getting beyond all control, notwithstanding the favorable expectation of the few.

I, like Dr. Hitt, have given *Strontium Bromide* with positive success in the *vomiting of pregnancy*, but not in his doses, or on account of its sedative, antispasmodic, analgesic, or moderate influences, but because it is a drug capable of producing the vomiting it cures, and in confirmation of this fact, I can do no better than refer to Dr. Hitt's own citation of Dr. Gowers. This eminent English authority, while extolling even larger doses of this drug (1 ounce at single doses), takes pains in cautioning the student to beware of overdoses on account of the vomiting this remedy is apt to produce. And now, hear to this, the English, however, do not administer daily doses, but prescribe rather a dose every second, third or fourth day, *in order to give time for the elimination of the medicament*. After the medicament has acted favorably or unfavorably? What is usually the amount of drug eliminated, and in what form and by which channels is eliminated? Are we to ignore these processes and accept these conclusions?

But when the consensus of opinion is to push the dose until the desired effect is reached, one can hardly fail to ask, What is the effect sought and how can be obtained by feeding the fire in a cripple furnace? A double contention with disease and drug. Larger doses still are advised in *Epilepsy*, and this only because the malady usually shows freedom from symptoms of *Bromism*, a novel argument which hardly could be indorsed by a reasoning mind. This is called *progressive medicine* in our day.

Let the hybrids give us their opinion about this judgment.

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THE LAW OF IMMUNITY AND HOMŒOPATHY.

BY

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(Read before the Homœopathic Medical Society of the State of Pennsylvania,
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SOME months ago at a meeting of the Boston Homœopathic Medical Society, Dr. Richard Cabot, of the Harvard Medical School, gave an address upon the similarities and divergences of the two leading schools of medicine. During the course of this address he said: "It has been perfectly just to charge our school in the past with the absence of any principle or law in therapeutics and to contrast the order and system of homœopathic treatment with the helter-skelter omnium gatherum of merely empirical methods. But the contrast is no longer just. Homœopathy has a well-defined law which has been established (like all laws) empirically, and is constantly and properly being subjected to re-verification through careful experiments. We also have at last, after groping and long years of work, obtained a law of therapeutics, a principle of therapeutic effort, namely, the principle of immunity, natural and acquired and of the means by which it may be attained, augmented, protected."

With this statement of Dr. Cabot I am in hearty accord, as it expresses the aim or goal of the entire medical profession. It is for the purpose of considering the above expression of belief that I appear before you at the present time, as on account of its origin, one of the most prominent of the dominant school, it

may be safely considered to be authoritative. And it will be my endeavor to show that in many respects, if not in all, the law of similars coincides with the law of immunity.

Included by the terms immunity and immunization is a very large proportion of the advances in therapeutics made during the last decade. In order, therefore, to obtain a more definite idea of the subject some consideration of these terms is essential. Immunity may be briefly defined as that power possessed by an organism whereby it is enabled to resist disease. To the production of that power is given the name immunization. Immunity can never be positively stated to be absolute as conditions may arise or be produced that will render susceptible individuals who are ordinarily immune. Immunity is either natural, some power inherent to the organism during its entire life by virtue of its being what it is; or it is acquired, a quality achieved by some external environment and contamination. Natural immunity being uninfluenced and uncontrolled by externals is therefore of comparatively minor interest to the medical profession. The varieties of acquired immunity are two: accidental and experimental.

Accidental immunity, such as is observed following measles, chicken pox, whooping cough, mumps, etc., is, as the name indicates, usually a result of accident, and as such is but little subject to control or regulation. Therefore, as with natural immunity, its importance is not great.

Experimental immunity, on the contrary, is of the greatest importance and is holding the attention of the medical world to-day as no other one subject does and probably more than all others do. Here are being made discoveries after discoveries in rapid succession in a field recognized by all to be only merely entered. Here, too, will be successfully sought that long-elusive explanation of why certain methods of treatment are beneficial and why others are not. And finally here also may be found the equally elusive material demonstration of the truth and efficiency of the law of similars.

Experimental immunity is produced purposely in one of two ways. With one, active immunity, the body is active in producing those anti-bodies that neutralize and render inert the noxious products of disease. With the other, passive immunity, the body merely acts as a vehicle to receive from some other source these neutralizing agents, that other source being usually the blood of some other animal.

The best illustrations of active immunity are vaccination and opsonic therapy; of passive immunity, antitoxin for diphtheria and for tetanus.

Interesting as the subject might be, the present is no time to enter into discussion of the value or dangers of vaccination and antitoxin. That which I do wish to consider more in detail is the close inter-relation between the treatment of disease by opsonic therapy, active immunization and the treatment by homœopathic medication. I advance as a fact that will be accepted by all that the only essential difference between the two schools of medicine at the present day is their methods of using drugs. In everything else we are in unison. Both schools make use of surgery, of antiseptics, of hygienic and dietetic measures, of massage, of electricity, of vaccination, of antitoxin, and of various adjuvants; in fact, of everything medical other than drugs. Let us grant, then, (as we willingly do) that their one aim is the production of experimental immunity. We, too, by using identical measures are also striving to make our patients immune. We are, up to this point on at least equal footing with them. So far as I am aware, no claim has ever been made by the dominant school that their drugs, empirically administered, have any direct influence upon the production of immunity. In fact, the reverse is true for have not many of the leaders in the profession practically abandoned the use of drugs, claiming better results without them than with them? It seems safe to assume, in view of the above, that drugs empirically used not only do not often raise but frequently actually lower the degree of resistance. This method of treatment, then, will be eventually abandoned, except in a certain few apparently specific diseases. And here lies the opportunity of homœopathy. If we can advance and say, here is a different method of applying drugs based upon an orderly and logical foundation, that is capable of demonstrably increasing the degree of resistance to disease, what honest man can gainsay us?

In order to do this, however, we must possess actual proofs of our statements in form that can be unquestioned. The personal element must be eliminated and material facts be adduced. Even clinical experience, liable as it is to be biased by individual opinions and prejudice, cannot fully convince. In this very scientific age, laboratory studies usually obtain widest credence. And so to the laboratories let us go for our facts, if they are here obtainable.

Thanks to Sir A. E. Wright, a method of laboratory study has now been perfected that will enable us to test the truth or fallacy of a number of our homœopathic claims.

By the study of the opsonic index of different individuals we are now enabled to follow with exactness variations in the degree of immunity so minute as to have been heretofore entirely undreamed of. So much has been written concerning this subject that further description would be not only unnecessary but unwise as well. Let us therefore merely glance over that which occurs subsequent to a vaccine treatment in a person whose index is, let us say, .7. Within a few hours the index and therefore the degree of immunity will be found to have fallen to perhaps .5. After a day it will have risen to its former elevation, and then for several following days will continue to rise to 1, 1.2 or higher. Here it will stay for a variable length of time, gradually falling to normal if no further treatments are given.

Much of the success of the immunization depends on the size of the dose used, there being a limit of variation, beyond which it is unwise to go. If the dose is too large the fall in the index will be unduly pronounced and will be followed by little or no rise. In other words, an aggravation will ensue. If the dose is too small very little rise in the index will be noted and little or no clinical improvement. The aim is to give that amount of injection that will produce the least fall with the greatest rise of the index possible. Or, in a more familiar phrase, the dose should be the smallest possible to produce the desired effect. The average size of these doses approximate the 5th to the 8th potencies of the homœopathic profession, varying of course with the particular variety of bacterium. They are given at varying intervals of once in from two to twenty days.

We have now seen that it is possible with all scientific accuracy to watch the effect of various forms of inoculations upon the opsonic indices to the organisms inoculated. What is more natural for the homœopath than to similarly test the influence upon the opsonic indices of drugs reputed to possess unusual value in certain infections. This can be tried in one of two ways: upon the healthy and upon those suffering from the activity of some bacterium. By a curious coincidence during the spring and summer of 1907, both of these methods were being independently employed by investigators far separated and each in ignorance of the work of the other. While Dr. Wheeler, in London, was experimenting with the effect of phosphorus upon

the tuberculo-opsonic index, the speaker was following the index to colon bacillus of a patient suffering from alimentary disturbance and who was being treated homœopathically. The coincidence, if it may now be so called, does not persist here as in addition to the similar experiments the conclusions were identical; *i. e.*, that, in certain instances at least, the proper use of the homœopathic remedy may and does increase the degree of immunity. Since this time other studies by Dr. E. A. Neatby, of London; Claude Burrett, of Ann Arbor, and the author tend to still further strengthen this idea. A brief resume of the results of these investigations may be of interest. Dr. Wheeler, who has charge of the Research Laboratory of the British Homœopathic Society, worked in association with Dr. Wright and Capt. Douglas in the determination of his tuberculo-opsonic index, as influenced by the internal use of phosphorus. Dr. Wheeler found, after a number of determinations, that his index was always low, ranging from .6 to .8. On account of these low indices Wright advocated the use of tuberculin as a prophylactic measure. Wheeler, however, studying himself carefully, decided that the indicated remedy for him was phosphorus. Several determinations of the indices averaging .6, he began the use of phosphorus 3x, taking one or two doses each day. After a week the index was found to be .88, and after 17 days it was exactly 1. The use of the drug was then stopped for four weeks, at the end of which time the index had fallen to .36. Occasional doses of phosphorus during the following month brought it once more to .99. The figures were all recorded by Dr. Wright without any knowledge of what the patient was taking or when it was being taken. Some time subsequent to this experiment the index was found to be .75. One dose of phosphorus 3x per diem carried the index in four days to 1.4; in eight days to 1.5. Phosphorus then being suspended the index three days later fell to .7. He made a number of other experiments similar to these, the most interesting of which was one showing the effect of a single dose of phosphorus 3x. Following two determinations of the index which were respectively .98 and .97, he took one dose of phosphorus 3x. Two hours later the index was .97, the next day 1.7; the following day 1.1 and the third day .8. By this means he demonstrated the decided but temporary action of a single dose of this medicine. Work was also performed to demonstrate, if possible, the effect of higher dilutions. This resulted in a very

slight fall in the index, followed by a very slight rise. In the interpretation of these results Wheeler is safely conservative. He states: "There seems to me good reason to believe that in my case the administration of phosphorus does effect the tuberculo-opsonic index. It would be a far cry from this statement to announce that the drug always effects the index of every one in this way."

Dr. E. A. Neatby, also of the London Homœopathic Hospital, has recorded some of his investigations. His tuberculo-opsonic index after a number of determinations averaging .9, he took as a drug one-twentieth of a grain of phosphorus at ten in the morning. At two that afternoon the index was .76. At ten o'clock the next morning it was 1.25 and on the following morning 1.59. Here was demonstrated the typical negative phase or aggravation followed by the much more decided positive phase or stage of amelioration. In order to test the specificity of the drug to tuberculosis he at the same time took his opsonic index to staphylococcus, the result being that practically no variation was noted.

Dr. Claude Burrett, of Ann Arbor, has written upon the action of echinacea upon the staphylococcus index, where he has been able to demonstrate a decided benefit to the prover following the use of that drug, as indicated by the rise in the index.

We have in the laboratories of the Boston University performed a number of experiments along this and similar lines, all of which thus far have justified our conclusions to correspond with the results above mentioned. Differing slightly from the object in view in connection with the testing of phosphorus and echinacea, we determined to investigate the action of hepar in material doses in its much-vaunted value as a promoter of suppuration. The indices of the provers were taken repeatedly under identical conditions, by which it was demonstrated that all were practically identical. The index to staphylococcus of one person was 1.2. Following this determination one dose of hepar 1x was given. Twenty-four hours later the index fell to 1, on the second day rising again, when it reached 1.1. A second person whose index was .96 took four doses of hepar 6x at half-hour intervals. The following day the index was .64, the next day .77. On account of unforeseen occurrences the indices of these two individuals for subsequent days could not be determined. If any conclusion may be drawn from this very fragmentary test it would be that in these two particular in-

stances, at least, hepar in single strong doses and in a number of comparatively small ones, is capable of materially decreasing the resistance to staphylococcus infection. It seems possible to exclude any personal equation in these determinations, as each examination was made in duplicate by the same person under identical circumstances and in entire ignorance at any time of what slide was being examined. In all, a total of fifty thousand bacteria were counted, and not until the series was complete were the results brought together for comparison. When they were thus united, however, it was found that both sets of slides were practically identical. Other series are now being made, and it had been the hope of the speaker to present them at this meeting. On account, however, of circumstances beyond his control they are not at present available.

One further study and one perhaps more instructive than the preceding, may be cited. It is directed from a somewhat different quarter toward the same goal. A patient, Miss S—, came to the Massachusetts Homœopathic Hospital early in May, suffering from chronic diarrhœa of some years' standing, due to no demonstrable cause. Tuberculosis and tumor were apparently positively eliminated. Her index to tuberculosis and to staphylococcus was 1.02 and .98 respectively. Her index to colon bacillus was .45. It seemed possible, therefore, that if her colon index could be brought to normal she might receive benefit therefrom. On account of her history of having shown marked improvement formerly from the use of sodium sulphate in homœopathic preparation, and as this seemed to be the perfectly homœopathic remedy for her case, we decided to try this and to watch the variation, if any, in the index. She was under observation in the hospital for nearly a month, but with all other conditions identical to those present subsequent to the beginning of the treatment. Upon June 16th she was given hypodermatically sodium sulphate 200x and upon the 22d this dose was repeated. June 26th index was found to have risen from .45 to .7. June 28th it was .88. On this day a third dose of the same medicine was given. Upon July 1st the index was .96 and upon July 4th 1.6. At this time one dose of sodium sulphate 30x was given in water and so repeated at intervals of a few days thereafter. The index upon July 12th was 1.3, July 24th .6; July 29th .9. Here again one cannot draw conclusions from a single case, but in this particular instance it would seem that the drug given in the strength indicated hy-

podermatically exerted a more potent effect upon the index than when it was given in another strength by mouth. During the entire time there was a steady improvement in the clinical symptoms until the patient went home early in August with practically normal intestinal functions, and feeling in excellent general health.

Such studies as those above cited indicate merely the outline of the road along which much work should be done, and we trust will be done. Here, if ever, seems to lie the opportunity of the homœopathic school to demonstrate to skeptics in a manner beyond question the efficiency of the homœopathic remedy in increasing the resistance of the patients and in accordingly putting them in a much better position to overcome the effect of disease. If we can thus demonstrate in a material manner that in infectious diseases, drugs thus employed do favorably influence the resistance of the patient as indicated by the opsonic index, we can with much more assurance claim that in other abnormal conditions than those due to parasites, drugs exert a similar beneficent action. It then remains for the future to discover some new refinement of technique that will enable us to extend our material proof into this realm as it has already into that of the infectious lesions. The entire field of opsonic therapy that is now being so favorably worked by many physicians of all schools is admitted to be distinctly homœopathic. This is particularly well demonstrated by the use of tuberculin and whether we agree with this idea or whether we prefer to consider it isopathic, we certainly will all unite in admitting that it is very closely allied to homœopathy in all respects.

By demonstrating, therefore, as these early investigations promise to do, that the homœopathic drug does act as an agent to increase the degree of immunity, are we not and have we not for years been striving for the same goal that our confreres of the dominant school now admit to be theirs? With them we use many other adjuvants recognized to increase the immunity, but in addition to these we have the advantage over them of a therapeutic principle applicable to drugs that they do not possess. This principle enables us to successfully treat cases and conditions perhaps often having no discoverable cause that are from their standpoint not amenable to medication. In other words, we possess all that is possessed by the older school and in addition use an implement the value of which they are

now beginning to recognize and which will, I believe, in future be held and wielded by all in our common fight against the grim reaper.

OBSERVATIONS IN ARTERIOSCLEROSIS.

BY

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(Annual Essay, Read Before the W. B. Van Lennep Clinical Club, Oct. 17, 1908).

THE object of this paper is to call attention to some fallacies which obtain in the diagnosis of arteriosclerosis. Such a subject is opportune in the light of the increasing recognition of arteriosclerosis as a general disease and its importance in local conditions. As far as the latter is concerned, it will be noted that the cerebral, abdominal and other visceral and peripheral scleroses are fast becoming clinical entities. Furthermore, the contributory influence of arterial change in other diseases makes it always a factor to be reckoned with, as internists, surgeons and the various specialists will testify.

Whether the sclerosis be senile or pre-senile, visceral or peripheral, local or general, advanced or early, the methods employed for its recognition are the same and consist in the consideration of certain symptoms and an examination of the peripheral vessels. Now the symptoms of general or local arteriosclerosis are notoriously vague and uncertain, and not infrequently absent, though, thanks to careful clinical analyses confirmed by autopsies, we know much more of the semeiology than formerly. Even when a local change gives very definite symptoms, we customarily diagnose the effect rather than the cause—that is to say, we recognize disease of some special organ and overlook the arterial change which gave rise to it.

As Stengel¹ says, "We find ourselves, somewhat like our patients, unsatisfied with a diagnosis that does not lay the charge of a progressive disease upon some particular organ."

If the symptomatology be rather vague or tardy in appearance, what can we say of the value of an examination of the peripheral vessels? An examination of the peripheral vessels is, in theory, a broad phrase, but in practice it narrows down to

¹Penna. Med. Journal, August, 1904.

the palpation of one radial artery. How often do we see the physician painstakingly study and compare the radials, brachials, temporals, femorals and smaller vessels elsewhere, as well as consider the veins and perivascular tissues? We think you will agree that the custom is to feel the radial and, perhaps, look at or palpate a prominent temporal. Since, however, it seems to be the rule to largely draw our deductions as to local or general arteriosclerosis from the findings in the radial, and since the results will typify the value of an examination of a peripheral vessel, we may devote ourselves to an analysis of this particular point.

The first query which logically presents itself is, what is a normal radial? This is the question which Thayer and Fabyan² primarily asked themselves in their "Studies on Arteriosclerosis," and they have answered it most fully. They show "that the radial artery varies greatly in its general characters at different ages." From birth on, the vessel gradually alters and thickens by proliferation of connective tissue so that in old age such a thickening cannot be considered abnormal. Furthermore, these changes vary in degree and time of appearance in different individuals and occupations. Two individuals of the same age and much the same habits in life may show a marked difference in their radials. Those subject to great physical strain will exhibit alterations sooner than those of sedentary habits. Errors of diet and previous infections are important factors in the production of individual variations. A consideration of these facts, Thayer and Fabyan state, demonstrates the difficulty of drawing a sharp line between the normal and pathologic radial artery. For example, "that which is normal at 50, would be pathologic at 30 years."

If we keep before us a composite conception of the normal radial, derived from anatomic and clinical knowledge of its normal evolution, we will much facilitate our studies of the abnormal vessel. Beginning at birth, we find a delicate, collapsing tube of relatively simple structure. The intima consists of a layer of endothelium directly on the internal elastic layer: the media is composed of seven or eight layers of circularly arranged, non-striped muscle cells and some delicate, elastic fibers: the fibro-elastic adventitia is relatively thick. In the first decade, changes appear. The intima thickens by the sep-

²American Journal of the Medical Sciences, December, 1907.

aration of one or more strands from the internal elastic layer, and the appearance in the sub-endothelial layer of a few connective tissue and muscle cells. The media and adventitia show some thickening by hypertrophy. The process continues in the various layers in the second decade. In the third and fourth decades, the changes, though progressive, are more gradual and usually confined to the intima and media. The intima, from now on, begins to show more change in the form of fibrillation of the elastica and the appearance of still more subendothelial connective tissue. The media also thickens, and now this is due, in part, to the proliferation of connective tissue between the muscle fibers. "In other words, the strain has begun to tell upon the vessel wall, and the yielding tube fortifies itself by the connective tissue thickening of the intima and to a lesser extent of the media." In the fifth decade, marked changes occur, especially in the intima, which shows considerable connective tissue thickening, as does also, but to a less degree, the media. After the fifth decade, the intimal thickening still progresses, while the media tends to thin, the muscle fibers disappearing but the fibrous tissue remaining. These progressive changes, appearing at the time indicated, are not abnormal. Certain retrogressions, fatty degeneration, necrosis and calcification, are apt to appear any time during and after the fifth decade, and these are pathologic. These are, in summary, the findings in 61 cases examined by Thayer and Fabyan. The writer has studied histologically 26 radials, and his findings are generally in accord with those cited above. During and after the fifth decade in what we considered normal cases, we have not found the degree and frequency of intimal thickening which we understand Thayer and Fabyan to regard as normal for that age. We were further impressed with the wide, normal, individual differences, as in a man of 81 whose radial was similar to that of a man of 20 years, and cases of individuals in the fourth and sixth decades respectively who exhibited almost identical vessels.

What clinical conditions parallel these various anatomic findings and contribute to the composite picture of the normal radial artery? Thayer and Fabyan state that the great majority of their cases over the age of twenty years exhibited palpable radials. The answer to the frequent inquiry then is, that the normal radial artery is very commonly palpable, at least in adults. They go further, and divide the palpable arteries

into those which they considered not thickened, and those which they regarded as thickened. In the first and second decades, they found no thickened vessels: in the third and fourth decades, 77 per cent. were normal, that is to say, not thickened: in the fifth decade, 63 per cent. of radials were found thickened, but in this decade we cannot regard a thickened vessel as essentially abnormal. Thus, the normal evolutions of the radial artery give us a vessel which from birth to death becomes more and more appreciable to the palpating finger—seldom palpable before the twentieth year, very commonly palpable afterward, not thickened in the first twenty years, thickened in about one out of four cases in the next twenty and in about two out of three in the remaining years of life. Coincident with this, the blood pressure gradually rises over the normal field until in advanced life it reaches the highest normal figures which, according to Janeway,³ we may consider up to 160 mm. systolic. The estimation of palpability and pressure, (by the finger) will frequently be erroneous if we do not carefully take into account the perivascular conditions. The palpability of a radial is often rendered easy or difficult, possible or impossible by the tissues surrounding it. A vessel determined as palpable in a lean wrist may be most difficult to detect in a firm, fleshy one. The correct estimation of vascular tension is likewise rendered precarious under such circumstances. The proper conception, then, of a normal radial is a shifting one, not difficult to understand from a clinical standpoint when we know and keep in mind the anatomic developments from birth to death. It is hardly necessary to remark the uselessness of the study of arteriosclerosis without a just appreciation of the healthy vessel.

The next question is that of radial or peripheral sclerosis. What anatomic alterations may we expect? If we recall the formation and lesions of arteriosclerosis in general, we bring to mind Thomas'⁴ widely accepted theory of primary degeneration of the media with compensatory thickening of the intima. This conception has never appealed to us and we note with interest Ophul's⁵ recent dissent from it. But whatever the pathogenesis and primary lesion, one cannot fail to distinguish in sclerotic arteries certain more or less distinct types

³American Journal of the Medical Sciences, May, 1906.

⁴Virchow's Archiv., CIV, CV, CVI.

⁵American Journal of the Medical Sciences, June, 1906.

of change. These will classify under three headings, intimal sclerosis, medial sclerosis and those in which the lesions are a hyperplasia of both intima and media. The first is typified in coronary arteriosclerosis, and those familiar with changes in this artery will recall the tremendous intimal hyperplasia which obtains, ten or twenty times the thickness of a somewhat thinned media, as well as marked degenerative changes in the innermost coat. The aortic changes are often, too, largely intimal in character. The second form, medial sclerosis, is typified in what is known as Moenkeberg's⁶ type of arteriosclerosis, the lesions consisting of retrogressive, especially fatty, changes in the media, followed by extensive calcification in the corresponding areas. The vessels of the extremities, those of the muscular type, as the brachials, radials, femorals, tibials, are the seats of attack, and it is particularly interesting that the media alone is involved, the intima being free or only affected as part of another disease. The third type of sclerosis finds its analogue in the gradual alterations described as physiologic to advancing years. But in disease there is either an exaggeration in the degree of thickening or in the time of its appearance or both. Moreover, the medial change of hyperplasia at first predominates over that of the intima and degeneration is little in evidence. Later, the media may thin, as in physiologic senility. This is the mildest degree of arteriosclerosis and approaches the normal evolution. It is found in the peripheral vessels.

In the radial, we meet all three types of sclerosis, but in very different degrees of frequency. The intimal form of sclerosis, that in which the intima is tremendously or predominantly thickened and degenerated, is comparatively rare in this vessel, contrary to common opinion. The conditions favorable for its production, so frequent in the coronary and cerebral vessels, do not seem to be present here as a rule. In the rare cases in which we do find such conditions, the result is very apt to be the production of some distinct local disorder such as is seen in Raynaud's disease, erythromelalgia, intermittent claudication or spontaneous gangrene. We have examined the radial vessel in a case of Raynaud's disease⁷ and found intimal sclerosis almost to the point of obliteration, but in a great many other radial vessels studied, we have never found what we would call

⁶Virchow's Archiv., 1903, CLXXI, 141.

⁷Bulletin Hahnemann Medical College, Phila., March, 1907.

a distinct intimal sclerosis. We know, of course, that we may have intimal sclerosis and that without local results, but we think it is the exception and not the rule to meet with this form of disease in the peripheral vessel. The medial sclerosis, with its characteristic areas of calcification, is probably more frequent in the radial than is ordinarily credited and is found much oftener than the intimal variety. Indeed, medial sclerosis finds its seat of election in vessels of the radial type, but compared with the other forms of sclerosis in all parts of the body, it is not frequently found. The third form, with its hyperplasia of the intima and particularly the media, and its absence of marked degenerative changes, is the commonest variety of disease in the radial vessels. But it is often difficult to draw a sharp line between the normal evolutions of advancing years and this type, and the degrees of change are many.

With this knowledge of the normal vessel and the form of radial sclerosis and their relative frequency, we may with greater advantage approach the clinical side of the subject. Placing our fingers on a patient's radial, we endeavor to estimate the tension and condition of the vessel wall. We do not propose here to dwell on the subject of the estimation of blood pressure. It can be estimated with rough or fair accuracy from the radial, and precisely with the various blood pressure instruments applied to the brachial. Let us assume that the blood pressure is correctly taken and discuss its significance later. As regards the condition of the vessel wall, we must first conceive in our minds what the radial should be in the particular patient, considering his age, occupation and other governing circumstances. We must never lose sight of the fact that a vessel sclerotic for a man of 35 years might be normal for a man of 50 or 60. We must then take into account the three forms of sclerosis we are liable to meet with and their relative frequency. The intimal form of sclerosis would be very rarely found and might or might not present a vessel palpable and obviously thickened. We recall several cases of Raynaud's disease in which the artery could be made out with difficulty and did not appear thickened. The second type, medial sclerosis, is the most obvious of all forms of sclerosis and gives us the pipe-stem, beaded vessel. More common than the first form, it is not nearly as frequent as the third variety in which the change is simply an exaggeration or prematurity of the normal evolution of the vessel. The artery is thicker and

harder than it should be at that age and under the existing conditions. Now it must be evident that a sclerosis which is but a variation on the normal will be hard to clearly separate from that state, and so it is that this most frequent form of radial change, varying from what may be safely diagnosed as the slightest to the most marked sclerosis is, in a goodly proportion of cases, difficult of positive diagnosis. It is by no means always easy to decide between a normal and an abnormal vessel clinically.

Assuming, however, that we have been able to accurately estimate the peripheral pressure and the condition of the vessel wall, what deductions may we safely draw?

First, as regards the peripheral blood pressure, what suggestions as to the existence or non-existence of arteriosclerosis can we obtain from the presence of normal or abnormal pressure in the radial? It seems to be a popular idea that arteriosclerosis is constantly associated with high blood pressure, but this is undoubtedly a mistake. Rudolf ⁸ has recently reviewed the subject and finds that the blood pressure is normal or even sub-normal "in many cases of even well-marked arteriosclerosis." Dunin ⁹ found the pressure normal or low in 27.5 per cent. of arteriosclerotic patients. Groedel,¹⁰ in 500 cases of well-marked arteriosclerosis, found the pressure normal or subnormal in 35 per cent. It has been shown that we may only expect an increase of peripheral blood pressure in arteriosclerosis when we have marked disease of the splanchnics or of the aorta above the diaphragm. On the other hand, the presence of high blood pressure is no guarantee that our subject is arteriosclerotic. For we know that increased blood pressure—hypertension—is much more common in chronic interstitial nephritis than any other diseased state, and may, besides, be due temporarily or permanently to other causes outside of arteriosclerosis and nephritis. If we could exclude nephritis and other causes, a rise of pressure might be of diagnostic aid, but altogether it seems that a low, normal or high pressure does not appear particularly suggestive as far as arteriosclerosis is concerned.

Second, what conclusions may we arrive at from a knowledge of the condition of the radial vessel? Is a normal or

⁸American Journal of the Medical Sciences, September, 1908.

⁹Quoted by Rudolf.

¹⁰Quoted by Rudolf.

abnormal radial an index of the rest of the arterial tree? To answer these important questions, we made a special investigation of sixteen cases coming to autopsy. In this series, we made a careful microscopic study of the radial and comparative examinations in each case of a number of the visceral vessels, such as the coronaries, aorta, cerebrals, renal, pulmonary, splenic and other abdominal vessels. We were thus able to examine and compare side by side a normal or abnormal radial and its corresponding coronary, vertebral, renal vessel, etc., and as far, at least, as the sixteen cases examined are concerned, the radial artery, whether normal or sclerotic is *not* an index of visceral or other arteries.

If a radial be examined and found normal, it seems customary to conclude that the internal vessels are approximately in the same state. Our results, however, do not confirm this idea. A few cases will illustrate. In Case No. 1, the radial was normal but the coronary showed marked intimal sclerosis and the renal artery distinct medial sclerosis with a large area of calcification. In Case No. 6, the radial was normal or, at most, very slightly thickened, while the coronary was extensively diseased and the basilar exhibited the most advanced intimal sclerosis. Case No. 9 was a subject 81 years of age, yet the radial was perfectly normal, indeed a vessel that we might expect in man of 20. The coronary, aorta, renal, splenic and pulmonary vessels were sclerosed. There were seven normal radials with intimal sclerosis of all the corresponding coronaries and aortae.

Per contra, if the radial be sclerosed, it does not follow that the rest of the arterial system is likewise so involved. It may be or it may not. The most obviously sclerotic radial, the one involved by medial degeneration and calcification, the pipe-stem artery, belongs to a class of sclerosis which, according to Moenkeberg, especially involves the peripheral and not the internal vessels: or if other arteries are involved, it is by another type of sclerosis bearing no essential relation to this form. This is seen in several of our cases. Case No. 5 exhibited a radial with marked medial sclerosis and calcification but quite a normal intima: the coronaries and aorta were the seat of intimal sclerosis, but the renal, pancreatic and vertebral vessels were normal. In Case No. 4, we had another example of medial sclerosis and calcification and a normal intima: the coronary unfortunately was not examined in this case, but the renal,

pancreatic, splenic and four small abdominal vessels were normal. We repeat, for emphasis, that this medial sclerosis involving the peripheral vessels and making them so obviously sclerotic is no index of the condition of the internal vessels and bears no relation to the form of sclerosis attacking them. In Case No. 10, there was moderate radial sclerosis of the third type, the coronaries and aortae were involved in a marked degree of intimal sclerosis, the renal and splenic exhibited slight intimal thickening and the pulmonary was normal. Case No. 3 showed a very slight intimal and medial change in the radial, but the corresponding coronary was the most extensively diseased of the series: the renal artery was normal, but the small vessels of the kidney were markedly thickened in the intimal layer. Case No. 14 presented an extreme degree of aortic sclerosis with aneurysmal dilatation. Case No. 15, likewise showed extreme degeneration of the aorta and also advanced sclerosis of the cerebral vessels. The radials in both cases were slightly sclerosed and might have been so diagnosed by the clinician, yet they would hardly have given a hint of the overwhelming sclerosis of the visceral vessels.

We cannot see, then, that the palpation of the radial for the purpose of estimating the tension and condition of the vessel wall contributes but to the knowledge of the radial itself. We cannot use the normal or abnormal radial as an index of the condition of the visceral or even the other peripheral vessels. Rudolf quotes a case in which the right radial artery was markedly sclerosed and the left not. The beaded vessel of medial sclerosis bears no relation to visceral sclerosis. The vessel exhibiting intimal and medial thickening offers, it seems, the sole and rather unreliable hint to internal conditions. If the radial be thus affected, we may assume the probability of the visceral vessels being still more so diseased. But a normal radial may be felt while the internal arteries are greatly degenerated.

We may find confirmation of these observations in the statements of other workers. In 400 consecutive cases of arterial disease, Brooks¹¹ found serious disease of the visceral trunks in 368. He says, "All of us who study disease, by following cases through the clinic to necropsy and laboratory, have been impressed with the inefficiency of our present methods of diag-

¹¹American Journal of the Medical Sciences, May, 1906.

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nosis of arterial disease. This is especially the case where the lesions are largely or entirely limited to the internal viscera. . . . The difficulty of recognition is well illustrated by the fact that of my 400 cases, but 154 were capable of diagnosis by the present methods, which depend almost exclusively on the condition of the superficial trunks. On the other hand, there is a limited number of cases in which peripheral changes may lead to erroneous conclusions: thus, 8 out of my 400 cases presented quite marked and easily detected alterations in the superficial vessels, without disease either of the aorta, large trunks, or those of the important internal viscera."

We digress for a moment to the subject of coronary sclerosis. In our studies we are impressed with the fact that coronary sclerosis of some degree is always present in adult life. Brooks, in 368 cases of visceral sclerosis, notes a great predominance of coronary disease. This only seems natural when we consider the location and physiology of these vessels, and it is a testimony to hard work and over-strain as important etiologic factors in arteriosclerosis. It would be valuable to have a study of the coronary arteries through the different ages and conditions of life similar to Thayer and Fabyan's study of the radial. We think we would find sclerosis advancing much faster in the coronary than in the radial.

Summary.—Arteriosclerosis is diagnosed on local or general symptoms and an examination of the peripheral vessels. The symptoms are frequently vague or uncertain, and much dependence is put on the examination of the superficial vessels, which practically means palpation of the radial for the purpose of estimating the tension and condition of the vessel wall. To do this intelligently, we must first have a proper idea of the normal vessel, and this is not as simple as it first seems but consists in a knowledge of a progressive series of changes which take place throughout life from birth to old age, rendering a soft, pliable, non-palpable vessel gradually hard, palpable and thickened, and all within normal limits. The not unimportant role of the perivascular tissues in rendering vessels palpable or non-palpable must also be taken into account. We must further know the forms of arteriosclerosis that we may expect to meet in the radial and their relative frequency. We will then know that intimal sclerosis as we find it in the coronary is a type found very rarely in the radial: that medial sclerosis with calcification is not an uncommon type found in old age and bears

no relation to visceral sclerosis: that that sclerosis which is practically an exaggeration or premature development of the normal changes we expect to find in the radial is the common form of arteriosclerosis here, and is therefore difficult to distinguish from the normal evolution of the vessel unless marked. Being thus able to correctly estimate the normality or abnormality of the radial, we inquire whether we may make any diagnostic deductions as to the absence or presence of arteriosclerosis elsewhere. We find that the radial whether normal or abnormal in its tension and structure is *no index* of visceral or other scleroses: that the radial blood pressure may be high, low or normal with arteriosclerosis and also without it and is of little diagnostic aid: that a normal radial is compatible with extensive and dangerous visceral sclerosis, and conversely a marked radial sclerosis may be found without disease of the internal vessels.

We are so accustomed in a routine way to palpate the radial artery and apparently attribute our opinion to its condition, that we probably overlook the fact that while we are feeling the vessel, we are also unconsciously considering the patient's general appearance, age, occupation, previous diseases, habits and other etiologic factors, the summary of which premises controls our diagnosis more than the one idea of the condition of the vessel.

The value of a knowledge of the status of the vascular system need not be argued. The lesson is that we need better methods for the recognition and location of arteriosclerosis, especially in its early stages. And that a careful study of the symptomatology of the disease will probably be of more value than the present methods of studying the peripheral vessels.

I am much indebted to Dr. Raymond S. Leopold for aid in the preparation of sections.

PLACENTA PRAEVIA.—In the treatment of placenta prævia Freund recommends in moderate hemorrhage rest in bed, watching the case carefully, and vaginal tamponade only for the purpose of transporting the patient. In profuse hemorrhage with closed cervix: tight vaginal tamponade of the entire vagina with sterile gauze for a few hours. Since with profuse hemorrhage the os is usually somewhat dilated, instead of the tamponade he recommends rupture of the membranes and waiting, or else the use of the metreurynter. If the latter is unavailing the child not near term, and in all cases where the mother is seriously endangered he recommends version and waiting, later with extraction by means of moderate traction when dilation approaches completeness.—*Abstr. in Zentralbl. f. Gyn.* 1908, 1030.

**EXPERIENCES ILLUSTRATING THE THERAPEUTIC VALUE OF
HYPNOTISM.**

BY

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THE object of this paper is to arouse in the medical profession a greater interest in the possibilities of suggestive therapeutics in certain classes of disease, particularly the functional neuroses. This seems especially desirable now because of the current interest of the laity in the study and popularization of this therapeutic aid, under various guises, and because of the recent religious movement, emanating from Boston, which has familiarized the laity with certain aspects of the subject.

That which is called hypnotism is not of recent origin; it has been used, more or less intelligently, in both religion and medicine for hundreds if not thousands of years. Only in the last hundred years, however, has it been brought within the pale of scientific research and employed by physicians in regular practice. During this period a large literature has accumulated in many lands, the subject matter having been handled both from the psychologic and the therapeutic point of view by able observers, many of whom have made it their life study. Dr. Christian A. Herter pertinently writes that "Hypnotism is no longer one of the curiosities of science; it is a therapeutic resource of unquestionable value which lies at the hands of every medical practitioner who is willing to take the trouble to inquire into its nature and the manner of its use." *

Though very extensively used throughout Europe, for some unaccountable reason it is employed by relatively few in this country, and certainly has not received the study and application which it deserves. This may be perhaps explained by the reprehensible absence of teaching in our colleges of this branch of therapeutics and in consequence the students, after graduating, not caring to waste their time in the study of a subject ignored by their former teachers and savoring so much, in their opinion, of the systems of mental healing so numerous in the United States.

It is no uncommon experience for the neurologist who uses

*Translator's Preface to Bernheim's "Suggestive Therapeutics."

suggestive therapeutics in his practice to hear others, even physicians, state their disbelief in any such a thing as hypnotism, insisting that the whole matter is a "fake"; that its only result is in "taking a man's will away from him and compelling him to make a fool of himself" on some public stage. Or else they aver it is, for some ill-explained reason, too dangerous a procedure to be employed in the practice of medicine.

The first of these statements does not require attention. The second is untrue, since as a matter of fact there is no surrender of individual "will" in the process of hypnotization, but, on the contrary, it is possible to increase and improve so-called "will power" in hypnotic procedures. In refutation of the third statement, relative to the supposed or real dangers of hypnotism, neurologists of great experience in the practice of suggestive therapeutics, emphatically deny that there are any unpleasant results, at any time, from the intelligent use of this agent. It is true that disasters have followed the illegitimate use of what is obviously a power by those who are ignorant and irresponsible, so that indeed the unprofessional use of hypnotism is, in many European countries, forbidden by law, and it is to our discredit that similar legal control is not yet exercised in this country.

It is a singular fact that in this, as in many other subjects, those who know the least about hypnotism are usually the loudest in its condemnation; so strenuous indeed are some in this direction that it would even appear to be a blind for total ignorance of a subject of which the public assumes they are well informed. By reason of this indifference or ignorance many patients are lost to the medical profession, to the corresponding advantage of the quacks, faith healers, Christian Scientists, *et al.*

A few of these patients, to the discredit of their former physicians who failed to cure them (and in fact to the discredit of the whole medical profession), will be and in fact are cured by these irregular systems for the very reason that, with all of the superstructure of error, they are founded on some of the basic principles of hypnotism. This was fully appreciated by Sir James Paget who, in a letter to Sir Henry Acland, remarked: "What unsatisfactory . . . cases these are. This clever, charming, and widely known lady will some day disgrace us all by being juggled out of her maladies by some bold quack, who by mere force of assertion will give her the

will to bear, to forget, or suppress all the turbulences of her nervous system." *

Let us briefly analyze the methods of these systems. The Christian Scientist, with the assistance of the patient's blind religious faith and fervor, by repeated positive assertions and suggestions arouses expectation of cure and simultaneously one of the lesser hypnotic states. Suggestion and auto-suggestion are brought into active service, the patient is taught to ignore symptoms by the assertion of their metaphysical unreality, and *vis medicatrix naturae* does the rest. Mental healers have the additional advantage of psychic contagion in arousing a more advanced state of hypnosis. This is due to the fact that they usually treat their patients collectively. Now the factors brought into service by these systems are auto-suggestion, faith, expectancy and psychic contagion on the part of the patients; and assertion, suggestion and monotonous repetition on that of the operator. Any one of these factors, alone, may be all-sufficient to induce an hypnotic state, and the results will be identical to those obtained from the employment of rational hypnotic procedures.

Many physicians of this country ignore suggestive therapeutics, or fear being criticised by admitting its use, because a degraded form of hypnotism is, as already intimated, a *sine qua non* of the various faith-curing systems. If this reasoning be carried to its logical conclusion physicians could no longer avail themselves of the benefits of drugs, because of their ignorant use by kindred quacks. Fallacious reasoning, such as this, may be responsible for the remarkable and deplorable fact that some neurologists (and this is particularly true of some in this city), condemn publicly in the strongest terms the use of hypnotism, meanwhile extensively practising it in private!

The following histories selected from the records of the Nervous Department of the Dispensary of Hahnemann Hospital and from those of my own practice, are chosen in order to present a variety of diseases and because the patients have been under observation a sufficient length of time to demonstrate that the recoveries were not of transient character. Though excellent results have usually been obtained in cases of hysteria, this disease has been disregarded here, as it is my intention to make it the subject of a separate paper.

*Sir James Paget: "Life and Letters." Quoted from "The Force of Mind," by A. J. Schofield.

Case No. 1 (Dispensary) male, aet. 38. Family history good except that his grandfather and father were steady drinkers; his father consuming as many as forty or fifty glasses of beer daily. The patient commenced drinking at the age of fourteen and averaged from ten to fifteen glasses of beer a day, occasionally taking as many as thirty. Since coming to this country, in 1889, he frequently had periodic irresistible craving for whiskey and would then drink about a half pint of this fluid daily for about three days. When nineteen years of age and during an attack of delirium tremens, he attempted to shoot himself in the chest but the revolver being thrust aside by a bystander, the bullet entered his arm, fracturing the humerus. At the age of twenty-two during another attack of delirium tremens he jumped out of a window. When drinking whiskey he had suicidal tendencies, principally that of throwing himself from some height, so that he feared going near open windows.

The patient is a well educated man and is able to converse in three languages, but his alcoholism prevented him from achieving the position and standing of his relatives. He had served his time in the German army medical corps and acted as orderly in many of the large hospitals of Europe and the United States. During the last few months prior to treatment his consumption of whiskey had become continuous, to the detriment of his occupation. Having frequently attempted to cure himself of the habit without the slightest success and as his affairs were becoming critical he was advised to apply to me for treatment, though, as he afterwards confessed, he did not believe that he could be hypnotized or cured.

On March 11, 1908, he was hypnotized in a few minutes by the combined methods of Braid and Bernheim and suggestions were then made that he had lost all desire for alcohol, that the simple idea of his taking a drink would nauseate him and that if he ever did take a drink he would vomit it immediately. When awakened he was confused for a short time and did not remember anything that had been said or done. He was then given a glass of whiskey which was vomited at once, much to his surprise and disgust. Because of the severe nausea, vertigo and general distress he was again hypnotized for a few minutes, in order to accomplish the removal of these symptoms. As he had been drinking heavily and continuously, strychnia phos. 2x was given every four hours, for a few days; but since

then no other medicine has been administered. The following day he was again hypnotized and the same suggestions repeated, without, however, any whiskey being given.

Following this he had absolutely no desire for alcohol; in fact he had an aversion for it. He began to save his money, felt better than he had for years and was extremely grateful for having been apparently cured of the habit.

Though frequently tempted by "friends" who tried to make him drink, his aversion persisted, without any further treatment, and he continued to abstain for five months, or until August 13, 1908. At this time, while under a severe mental stress, due to acute worry over peculiar circumstances, concerning the death of a friend, he deliberately got intoxicated, on half a pint of whiskey, in order to forget his exaggerated troubles. This was immediately followed by severe illness and vomiting for twenty-four hours, when the symptoms were removed by suggestion. Since this accident there has been no desire for alcohol and he confidently asserts that he is permanently cured. In the course of his duties he is under daily observation by me and I feel sure that no deception is being practised. A peculiar incident occurred on August 29, when, unknowingly, he took a drink of water from a glass which had just contained whiskey and had not afterwards been washed. Immediately he became very ill and vomited a number of times. These symptoms lasted for five hours, when they were removed by suggestion. This patient was hypnotized altogether five times, the dates being on the 11th and 12th of March, the 14th and 29th of August and on September 14, 1908.

Such a result would almost lead one to believe the assertion that when patients desire to be cured, and will submit to the conditions of treatment, chronic alcoholism and dipsomania are very amenable to suggestive therapeutics; Oscar Wiasemsky claims to have thus cured 80 per cent. of these cases.

Case No. 2, J. W., aet. 12. This boy first applied for treatment in the Nervous Department for post diphtheritic ophthalmoplegia and neurasthenia, on June 1, 1908. Under medical treatment, the ophthalmoplegia disappeared; but his neurasthenic symptoms were not influenced. Accordingly he was hypnotized for the first time, on July 2, 1908, and suggestions were directed towards the neurasthenic condition. Improvement immediately supervened, all medicines having previously been discontinued, and by August 7, 1908, after having been

hypnotized five times, his recovery was complete. At this time his mother complained of his habit of cigarette smoking, and suggestions were directed towards this condition; that is during hypnosis, he was told that he would lose all desire to smoke and that smoking in the future would make him so sick that he would vomit. After waking he was given a cigarette to smoke, but, much to his surprise, was unable to finish it because of nausea and retching though no vomiting actually occurred.

On August 8 and 15 he reported having taken a few puffs of a cigarette on several occasions without becoming ill, so he was again hypnotized and suggestions were made that during hypnosis he would smoke a cigarette which would cause severe illness and vomiting. He was then given a cigarette but after a few puffs became nauseated and retched frequently. The illness was increased by suggestion, in an effort to obtain vomiting, until because of his pallor and weakness of the pulse, further efforts in this direction were deemed unwise. Before being awakened the symptoms were caused to disappear by suggestion and he was told that he had vomited; that after waking he would remember having vomited and how very sick he had been and that if he ever smoked again he would surely become equally as ill. This patient never has subsequent memory of anything that occurs during hypnosis, but this time I succeeded in causing him to remember in the awakened state how very ill he had been, and also succeeded in fixing upon him the delusion that he had vomited in the hypnosis already referred to. Following this he has had no desire at all to smoke and he has told me that he wouldn't dare to do so now for fear of getting sick again. The cure of the neurasthenia and cigarette habit has remained to the present date, for he is still under observation and treatment for moral and educational purposes.

The purpose of causing vomiting in the first case, and the delusion of having vomited in the second one, was in order to reinforce my suggestions by an association of ideas between the desire for alcohol or cigarettes, if any persisted and some disagreeable consequence of its gratification.

Case No. 3, J. D., aet. 15, was transferred to the Nervous Department on March 4, 1908, from the Children's Department, where he had been under treatment for chorea for one year with but slight improvement. He is mentally deficient,

being about two years below boys of his own age at school, and is a typical street gamin. A history of rheumatism could not be obtained and no cardiac murmurs were apparent. The choreic movements were general, frequent and severe.

On March 5, 1908, in the presence of his father, an attempt was made to hypnotize him but he thought an operation was to be performed on him while asleep so he cried and would not allow anything to be done. The only result of persuasion and reasoning with him for forty-five minutes, was a promise to allow me to hypnotize him at his next visit. Two days later he was easily hypnotized in two minutes and suggestions were made calculated to improve his nervous condition and to mitigate the severity of the choreic movements. After each subsequent treatment he steadily improved and by March 17, 1908, the choreiform movements were barely noticeable. On this date, being demonstrated in Dr. Bayley's subclinic, ambulatory automatism, catalepsy and analgesia were easily elicited. On April 21, 1908, after having been hypnotized altogether eleven times, the movements had entirely ceased. Since then he has occasionally visited the department by request, the last visit being on August 20, 1908, and up to that date he remained perfectly well. He was always amnesic for the occurrences during hypnosis. I may add that all medical treatment was discontinued when he entered the department.

Case No. 4. While under treatment for a severe and chronic neurasthenia, a manufacturer, aet. 50, requested that a sebaceous cyst be removed from his neck. Accordingly, on April 12, 1908, while under hypnosis for the third time, the cyst, which was about the size of a hickory nut, was dissected out and the wound sutured. During the operation not more than two drops of blood were lost and the wound was entirely well in four days. This experience and others of similar character would tend to corroborate the experiments and practical results of other hypnotists, who have claimed that there is but little hæmorrhage from wounds made under hypnotic analgesia and that the healing is much more rapid than under ordinary circumstances. This patient always appeared to sleep deeply during hypnosis and was afterwards amnesic, but on this occasion he wished to witness the preparation for and details of the operation; so after hypnotizing him he was told that he could keep his eyes open and remember afterwards what had occurred. Because of this procedure he knew every-

thing after the operation that had been done during that time and he said he had not experienced any pain at all though he had felt the pressure of the knife and the traction on the cyst during enucleation.

Experimental analgesia can be obtained in about 80 to 90 per cent. of all cases hypnotized, but the emotional disturbances, preceding a formal operation, often interfere with hypnosigenesis so that operative analgesia can be obtained actually in only about 20 to 40 per cent. of cases and that only after training and further one is uncertain as to the degree of analgesia present. For this reason hypnotism is often unsatisfactory in the production of surgical analgesia, though many of the major operations have been performed with its aid.

Case No. 5. January 28, 1908, Miss X, aet. 24, came to me for the treatment of a large and very painful alveolar abscess of the inferior maxilla. After the induction of hypnosis, upon exploratory probing, the condition was found to require the attention of a dentist, so suggestions were made to induce freedom from pain and to cause normal sleep that night, as she had been suffering with insomnia as a result of the pain. The following day the patient informed me that there had not been any pain since the suggestions were given and that she had slept well.

Having been hypnotized in the dentist's waiting room, she walked into the office and sat down in the dental chair. The gum was thoroughly incised, a piece of the alveolar process removed, and a supernumerary tooth extracted laterally from beneath the overlying one. The patient afterwards stated that she had not felt any pain, but was otherwise conscious of everything that had taken place. Though formerly extremely sensitive to pain, according to her dentist, she subsequently had a number of teeth filled painlessly without being under hypnosis at the time. This was accomplished by post hypnotic suggestions, given in my office, for the absence of pain and nervousness while in the dental chair.

Hypnosis is particularly applicable to dental operations as absolute analgesia for this purpose is readily secured in about 90 per cent. of cases, and a more or less incomplete analgesia is present in the remaining 10 per cent. It is quite possible to send some patients to the dentist alone and secure absolute analgesia by means of post hypnotic suggestion, the patient being perfectly conscious as illustrated by this patient. This method

is an improvement over the one originated by Dr. Milne Bramwell, of England. His technique, objectionable for obvious reasons, is to send his nervous patients to the dentist with a written order, to be read after seating themselves in the dental chair, to go to sleep, not feel any pain and to obey the orders of the dentist.

Case No. 6. Mrs. X., aet. 29, suffered from chronic constipation and its resulting evils. Her bowels moved about three times a week and only after having taken a purgative. As a result of suggestions given during the hypnotic state on the 10th and 12th of March, 1908, she has had regular daily bowel movements to the date of this writing, without having taken any medicine or made any change in diet. This patient though a remarkably healthy woman was very sensitive to pain. By means of post hypnotic suggestion, on several occasions she has gone to the dentist alone and received attention, which had formerly been almost unbearable to her, without having any discomfort at all.

Another interesting feature of this case is her extreme susceptibility to mal-de-mer. Before being a half an hour in a boat on still water she would become nauseated and vomit violently. Being a great lover of all out of door sports she wished me to endeavor to remove this tendency. After having been hypnotized four times with this end in view she was able to take trips of several hours' duration in a motor boat out in the open sea and only once became ill, when the engine got out of order and the boat was tossed about by a heavy land swell. The only other time illness has occurred since the last treatment was when she was in a launch at anchor in the lower Delaware River. This case was selected as typical of the good results to be obtained by this method of treatment in chronic constipation.

Case No. 7. Miss X, aet. 20. Menses first appeared at the age of fourteen and lasted ten days. When fifteen years old she suffered from severe dysmenorrhœa accompanied by attacks of syncope. This condition persisted until she was eighteen, when some vaginal operation was performed with subsequent amelioration of the symptoms. She applied to me for treatment February 22, 1908, and at that time complained that the flow lasted for seven days and caused pain, vomiting, headache and other disturbances severe enough to cause her to remain in bed for at least one day during each period. About

four times a month, usually following excitement, she had hysterical attacks consisting of laughing, crying and uncontrollable movements, lasting for about fifteen minutes. In addition she had neurasthenic symptoms such as irritability, amnesia, lumbar backache and insomnia. Sleep would be delayed for from one to three hours and was then light and interrupted. She was very anæmic and emaciated, her face was covered with acne, and she perspired profusely.

She was hypnotized February 22, 1908, for the first time and from the time of the first treatment her sleep became normal and has remained so. She claims to go to sleep in less than ten minutes and sleeps soundly the whole night. On May 13, 1908, after having been hypnotized eleven times she entirely recovered and as she expressed it, "never felt better in her life." At this time she had increased in weight, her anæmia, acne and hyperidrosis had entirely disappeared and she was free from hysterical attacks and dysmenorrhœa from the first treatment. There has been no return of any of her symptoms. Her medical treatment consisted solely of ferum during the first month.

In this case the results were most pleasing to the patient and gratifying to myself, because of the rapidity with which the symptoms disappeared and because of her complete recovery from conditions which had been established for years.

The rapidity with which good results were obtained in the treatment of insomnia and functional dysmenorrhœa as here illustrated is not the exception under suggestive therapeutics. In fact, one might almost state that recovery is the rule and failure the exception.

Since some may be inclined to feel that the results in the above cases are unusual, I hope, at some future time, to publish an analysis of the results of all cases which I have treated with hypnosis.

Physicians have often inquired what diseases are suitable for hypnotic treatment, and we may conveniently conclude this paper by giving a tentative and partial list of symptoms and diseases amenable to suggestive therapeutics. This list, drawn mostly from the experiences of others, is of necessity an arbitrary classification. Excellent results are usually obtainable in chronic alcoholism, headache, dipsomania, constipation, cigarette habit, dysmenorrhœa, habit spasms, dental analgesia, neuralgias, seasickness, functional impotence, insomnia, nocturnal

eneuresis, nocturnal somnambulism, the accidents of hysteria—amblyopia, deafness, mutism, contractures, convulsions, tics, tremors, paralyses anaesthesias, vomiting, anorexia, hiccough, etc.

Good results are to be expected in chorea, stammering, neurasthenia, cardiac and gastric neuroses, kleptomania, drug habits, migraine, morbid fears and doubts, imperative conceptions, sexual perversion, masturbation, asthma, hay fever, tic douloureux, surgical and obstetrical analgesia (at times).

Good results are occasionally encountered in epilepsy, melancholia and hypochondriasis.

THE SERUM OF THE EEL.

BY

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(Translated from the French by Eduardo Fornias, M. D.)

WE should certainly reserve for the serum of the eel an important place among the well-known venoms: lachesis, naja, cobra, vipera, etc., whose employment is almost daily in our practice. True enough, this ichthyotoxin has not been proven on the healthy human organism, and we have no pathogenesis of this excellent remedy, but nevertheless its indications are easily determined by the experiments of Dr. Pierre Jousset on animals.

Mosso and Phisalix were the first to call the attention of physiologists to the action of the eel's serum. They showed the great analogy existing between this serum and the venom of the vipera, and demonstrated once more the excellence of the Law of Similars. They succeeded to immunize hot-blood animals against the poison of the viper by a previous inoculation with the eel's serum; and, let us add, that to practice this sort of vaccination, Mosso attenuated in some way the serum of the eel by exposing it to a temperature of 60 degrees Centi-

grade. This temperature deprives the serum of its noxious properties, but does not interfere with its vaccinating power.

But in the experiments of Mosso and Phisalix, the employment of massive doses of the eel's serum, by doing away with the animal in a few minutes or hours, prevented the observations of symptoms and the progressive production of organic lesions. In 1899 Dr. Pierre Jousset resumed these experiments, obtaining survivals of nearly two months, which enabled him to observe conveniently and at ease the symptoms and lesions produced by this serum in the rabbit.

I can do no better than give here the reports of the experiments made with this serum in the months of March and May, 1899.

FIRST EXPERIMENT.

March 19th, 1899.—11 drops were injected: Pulse 148 per minute before the injection, 109 after the injection.

March 20th, 1899.—Albumin and blood in the urine. Lacrimation.

March 21st, 1899.—Injection of 3 drops: Pulse 136 (before), and 128, then 120, then 116 (after).

March 23d, 1899.—Injection of 4 drops: Temperature 39.7° (before) and 39° (after). Pulse 148 (before) and 122 (after). —Trembling. Renal cells and some globules in the urine.

March 24th, 1899.—Injection of 4 drops: Pulse 144 (before), 136 (after).

March 27th, 1899.—Injection of 5 drops: Pulse 156 and respiration 26 (before). After the injection: Pulse 132 and respiration 36.

March 29th, 1899.—5 drops of serum: Temperature 38.8°, pulse 144 (before) and 144 after the injection.

April 1st, 1899.—Temperature 39.7°; 5 drops of serum: Pulse 160 (before) and 144 (after). Polyuria.

April 3d, 1899.—8 drops of serum: Temperature 40°, pulse 148 (before) and 144 (after). Polyuria and pollakiuria.

April 11th, 1899.—Diarrhœa and diminished urine.

April 12th, 1899.—10 drops of the serum.

April 13th, 1899.—Death of rabbit.

Autopsy.—The kidney was found enlarged (unique). Fragments of the kidney, of the liver and of the intraventricular

walls of the heart were previously removed and placed, some in osmic acid, the others in strong alcohol.

There was neither mingling nor fatty degeneration of these organs. Microscopical examination gave the following results:

Liver.—Patches of necrosis of coagulation around the sub-hepatic veins, whose necrosed outer coats are slightly thickened.

A slight degree of sclerosis exists at the level of the portal spaces.

The vena porta and hepatic artery found intact.

The parenchyma of the liver is almost totally altered, chiefly at the level of the portal spaces, where the trabecular aspect is no longer discernible and the cells present the lesions of coagulation—necrosis.

Kidneys.—Very slight congestion. A few small points of coagulation necrosis in the glomerule, with inflammatory multiplication of the nuclei. Arteries intact.

Heart.—No congestion or well appreciable lesions. However, with various reagents, the reaction of amyloid degeneration in a somewhat great number of muscular fibres, was positive.

SECOND EXPERIMENT.

May 31st, 1899.—An injection of 5 drops of the serum: Pulse 176 (before the injection) and 156 (after). 6 minutes after, spontaneous convulsions. Lacrymation and paraplegia of posterior limbs. In the urine: 2 grammes per litre, and a few casts (tube-casts).

June 2d, 1899.—Injection of 5 drops. Pulse 144 (before) and 192 (after).

June 3d, 1899.—Anuria during 24 hours. Pulse 144. Ate little.

June 4th, 1899.—Urines: traces of albumin and renal debris.

June 5th, 1899.—Injection of 6 drops. Pulse 156 (before) and 168 (after).

June 6th, 1899.—Persistent albumin in the urine.

June 7th, 1899.—No albumin discovered.

June 10th, 1899.—Injection of 12 drops. Pulse 160 (before) and 220 (after).

June 12th, 1899.—Injection of 14 drops. Pulse 180 (before) and 144 (after); anuria during 36 hours.

June 14th, 1899.—Albumin present.

June 16th, 1899.—Injection of 8 drops. Pulse 144 (before) and 204 (after).

June 17th, 1899.—Anuria during 24 hours. Does not eat. It was sacrificed and the autopsy made.

Autopsy.—The same lesions as in the first experiment.

The *serum of the eel* has a toxic action on the blood, rapidly destroying its globules. The presence of albumin and renal elements in the urine, the hemoglobinuria, the prolonged anuria (24 and 26 hours), together with the results of the autopsy, plainly demonstrate its elective action on the kidneys. Secondly the liver and the heart are affected, and the alterations observed are those usually present in infectious diseases.

From all these facts it is easy to infer, *a priori*, the therapeutic indications of the *serum of the eel*. Whenever the kidney becomes acutely affected, either from cold or infection or intoxication, and the attack is characterized by *oliguria*, *anuria* and *albuminuria*, we will find the *eel's serum* eminently efficacious to re-establish diuresis, and in rapidly arresting albuminuria. When during the course of *heart-disease*, the kidney, previously working well, should suddenly become affected and its function inhibited; and when besides we observe cardiac irregularities and a marked state of *asystolia*, we may yet expect good results from this serum. But to determine here the choice of this remedy is not an easy matter. While *digitalis* presents in its indications, the well-known symptomatic trilogy: *arterial hypertension*, *oliguria* and *œdema*; the *serum of the eel* seems better adapted to cases of *hypertension* and *oliguria*, *without œdema*. We should bear in mind that the elective action of the eel's serum is on the kidney, and I believe we can well assert that if *digitalis* is a cardiac, the *eel's serum* is a renal remedy. So far, at least, the clinical observations published seem to confirm this distinction. The serum of the eel has given very small results in attacks of *asystolia*; but it has been very efficacious in *cardiac uremia*. There, where *digitalis* is powerless, the *serum of the eel* has put an end to the renal obstruction and produced an abundant diuresis. But its really specific indication seems to be for *acute nephritis*, *a frigori*. In a case of this kind I obtained a fine result.

A patient, 58 years old, while leaving his place of employment, took a sudden severe cold which ended in acute nephritis. In the evening he was nearly in a state of coma, with somnolence, stupor, red face and very rapid pulse. I gave him

opium 30, and ordered the examination of the urine, which revealed the presence of 4 grammes, 50 cts., of albumin in about 600 grammes of the 24 hours' urine.

From the next day on, the patient who had regained consciousness, and presented an odematous condition of the inferior eyelids, some pronounced lumbar pains, and a diminution of the ordinary rate of urine, as well as an accentuation of the second sound (*bruit aortique*), with a touch of a *bruit de galop*, took every morning and evening a tablespoonful of the *eel's serum*, 6c, 20 drops in 200 grammes of water. Nine days after, the albumin which had gradually diminished, entirely disappeared and the heart became normal.

The *serum of the eel* is very easily obtained. After uncovering the heart of the fish, the pericardium is laid open and the aorta appears under the form of a whitish cord. Bent glass tubes, thin at one extremity, plugged at the other end with sterilized absorbent cotton, are directly introduced in the cavity of the vessel. At each cardiac contraction the blood enters the tube. The fluid, thus gathered, is set aside, and at the end of a few hours the serum is found separated from the coagulum. It can be preserved for several hours in a cool place and then mixed with glycerine (*serum 1 part, glycerine 9 parts*). The successive attenuations are made either with glycerine or with distilled water, for alcohol alters the organic products.

Dr. Pierre Jousset usually employs the first decimal attenuation of the *eel's serum*; I use the 6th centesimal, as a rule, but I believe one can adopt with profit the following manner of administering this remedy. In cases of heart-disease, complicated with uræmia, the lower dilutions (1x to 3c) are undoubtedly preferable. But, in sudden renal attacks, acute nephritis, for instance, higher dilutions (3c to 6c) are more useful.

The *serum of the eel* is obviously a most precious remedy, and all the homœopathic physicians should certainly thank Dr. Jousset for the introduction in our school of so valuable a drug, but hoping that further researches may enhance its usefulness. In 1901 Dr. Petit presented a work on the serum of the conger, whose action reminds us of that of the serum of the eel. (Soc. Biol. 1901, No. 8).

Perhaps in a future day we may be able, with better means of experimentation, well conducted and controlled, to obtain

new remedies derived from the blood of cold-blood animals, which will be placed, side by side with those organic products (venoms and nosodes), of which, no one to-day can deny the admirable effects.

RENAL HEMATURIA—REPORT OF CASES.

BY

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(Read before the Bureau of Surgery, Homoeopathic Medical Society, State of Pennsylvania, Harrisburg, September 22-3-4, 1908.)

THE presence of blood at the urinary meatus, or intermixed with the urine, is a condition which annoys not only the patient, but the doctor as well, causing considerable thought concerning its cause and cure. Indeed, until a few years ago the source of blood in the urine was a matter of conjecture. It is true that certain rules were laid down which were supposed to guide the diagnostician, but none of them were of any marked value and, since the advent of instruments of precision, have been relegated to the past. Now the exact source of bleeding may be determined by the urethroscope, cystoscope, and the ureteral catheter. Indeed no accurate opinion, either diagnostic, or prognostic, can be given without the intelligent use of these instruments. While sometimes bleeding stops spontaneously, or by the action of certain remedies, yet the origin of the hemorrhage and its scientific treatment must remain in doubt unless cystoscopy is employed.

Unilateral renal hematuria arises oftenest from trauma resulting from wounds, violence and fractures. Stone tuberculosis malignancy and malpositions of the kidney.

Case 1.—Referred by Dr. Grumbrecht. G. S., laborer, fell from the deck of a vessel to its hold, injuring his back. Shortly afterwards he voided bloody urine constantly for twenty days, during which time he was confined in a Philadelphia hospital. Without any local treatment or operative interference the bleeding stopped, and there was no recurrence for forty days, when suddenly, apparently without cause, it recurred and con-

tinued for ten days uninterruptedly. The patient passed long, thin clots. When I saw him he was in a very weak and alarming condition. The local symptoms, pain and tenderness, were referable to both kidneys, but especially to the right one. The kidneys were in their normal position. Cystoscopy showed the left ureteral orifice normal, and the right one swollen, congested, and spurting blood,—gradually clouding the field. I catheterized the right ureter, irrigating the pelvis of the kidney with a saturated solution of boracic acid. This, together with cantharis and berberis, succeeded within a few days in allaying the hemorrhage. Eighteen months have elapsed, during which he has had two mild attacks of renal hematuria. Was the cure brought about by catheterization of the ureter and irrigation of the kidney pelvis?

Hagner* reports the successful cure of three cases of unilater-



CYSTOSCOPIC VIEW OF BLOOD SPURTING FROM THE URETER.

al renal hematuria following catheterization of the ureter. I am inclined to believe where stones, tuberculosis, syphilis and malignancy can be excluded that this method is worthy of a trial before resorting to operative interference.

B. F. R., Surgical Wards Mercy Hospital, age 27. Occupation, harness maker.

Past History.—Seven years ago had an attack of hematuria which lasted two months and then disappeared.

This followed a rather active fistic encounter.

Present History.—Since August, 1906, he has been bleeding intermittently, this always following marked exertion. The urine is never entirely free from blood, which at times is bright red. The kidneys are normally placed, and apparently not enlarged. He complains of feeling tired and has lost in weight.

*Annals of Surgery.

There are no evidences of previous infection. Cystoscopy shows the bladder normal in every respect. The right ureteral orifice normal and spurting regularly, the left ureteral meatus acting sluggishly and emitting free blood with every systole. The left ureter was catheterized, also the right one. The urinary analysis showed that the urine from the right ureter was acid, S. G. 1020, containing a few crystals of oxalate of lime and uric acid. The left showed specific gravity of 1028; albumin, crystals of oxalate of lime and uric acid, granular and hyaline casts were present. The urine was examined for tubercle bacilli with negative results. The patient was placed in bed and treated with calcium chloride, cantharis, ergot and hammamelis. The ureter was catheterized several times and the pelvis of the kidney washed out with a saturated solution of boracic acid to which was added a few drops of adrenalin chloride. This treatment, however, was unsatisfactory. Accordingly, the kidney was exposed, its capsule split, an incision made into the substance of the organ and a drainage tube placed in. The ureter was washed through the drainage tube morning and evening for several days. Within a few days the bleeding ceased. Three weeks after operation the patient left the hospital. I have examined him several times since, he has had no bleeding.

Patient of Dr. Grumbrecht. Mrs. A. R., age 27, for the past two years had symptoms pointing to stone in the right kidney. She had attacks of severe characteristic pain on the right side, extending along the ureter, occurring several times monthly. The urine was cloudy and contained pus and blood. Cystoscopy showed the bladder normal in every particular, except slight congestion at the trigone. The right ureteral orifice was spherical and gaping. It was catheterized. No difficulty was encountered until the pelvis of the kidney was entered, when the catheter curled upon itself. Bierhoff's pelvic distention test for the detection of stone in the kidney was then made, with positive results.

The hematuria which results from the pelvic distention test, in the presence of calculus, is due to the dislodgement and movement of the calculus by the stream of fluid, and, as a result of this dislodgement, blood results from traumatism of the pelvic membrane. The urine showed blood, pus, uric acid, epithelium, and casts. An X-ray examination confirmed the diagnosis of stone. The left ureter was catheterized, and the urine

examined and found normal. I removed the stone, and the patient left the hospital thirty-six days after operation, since which time she has had no return of the symptoms.

H. L. P.—Surgical Ward, West Philadelphia General Hospital. Patient of Dr. Percy Ealer, age 36. Occupation, hosiery finisher.

History.—Patient sought relief from bloody and frequent urination. He had an attack of urethritis twelve years ago. Has been passing blood for the past four months, being compelled to urinate from twenty-five to thirty times by night and day. He has lost considerable weight. Examination disclosed marked sensitiveness of the right kidney. The urine is alkaline and contains tubercle bacilli. The temperature varies from 101 F. to 102 F. The prostate and seminal vesicles and testes are apparently involved. The capacity of the bladder is five ounces. Cystoscopic examination showed tubercular ulcerations about the trigone and right ureter.

The ureters were catheterized, the left one showing no evidences of tubercular bacilli. The right one showed pus and blood with every systole.

The patient's condition was so precarious that I did not think it advisable to resort to operation. Several days afterwards, however, following a chill and rise of temperature, he was seized with sharp pains along the course of the right ureter and marked sensitiveness about McBurney's point. I decided to drain the kidney, this temporarily relieved him by evacuating an abscess. Yet he became slowly worse and dragged out a miserable existence in the hospital, succumbing to general tuberculosis within a few months.

T. J. H.—Surgical Ward, West Philadelphia General Hospital, age 47; married. Occupation, brakeman.

History.—Ten years ago contracted urethritis. Three years subsequently commenced to suffer pain in the region of the bladder during the act of urination; the pain extended to the end of the urethra. Strangury and blood were pronounced. The frequency of urination increased to seven times during the day as well as by night. During urination he would suffer severe pains in the left kidney. The bladder at that time accommodated but two ounces. This, however, was increased to eight ounces. Kidney stone was suspected. Accordingly the patient was advised to undergo an operation. He was told, however, that no stone was found, but that white spots were

seen studded over the kidney. The kidney was drained and he left the hospital five weeks after the operation. No relief, however, occurred. The strangury became even worse and the desire to urinate almost unbearable. The frequency increased to every fifteen minutes both day and night.

Examination showed the prostate engorged and sensitive. Catheterization of the bladder was accomplished with great difficulty, because of contracture at the neck of the bladder. Cystoscopy was impossible. Bladder irrigations could not be practiced. Accordingly I decided to drain the bladder by perineal section as a preliminary to cystoscopy. Convalescence was uneventful, and one month afterwards the urine had greatly improved, the bladder capacity increasing so that I was able to cystoscope him and catheterize both ureters. The right ureter was normal and presented no evidences of kidney involvement. The left ureter, however, was hidden in a mass of ulcerative lesions. Bloody urine was seen spurting from it. It was catheterized with difficulty. The urine showed albumen and tubercle bacilli. Accordingly it was decided to remove the kidney and ureter. The patient was given the benefit of out-door treatment for a while together with gentle irrigations of the bladder. His general health having slightly improved he re-entered the West Philadelphia Hospital, and I removed the kidney and ureter. He was in bed thirteen days, in the hospital twenty days, and left decidedly improved in every way. I see him occasionally. The urinary symptoms have decidedly improved and likewise his general condition.

Renal hematuria may, too, arise from nephritis, tumor, disease of the supra renals and renal angio neurotic changes. Syphilis has been directly responsible for three of my cases, all of which recovered promptly from rest in bed and intra-muscular injections of sozoiodolate of mercury. Bleeding from the kidney is not infrequently met with, as a sequel of typhoid, malaria, variola and influenza; hemophilia is, of course, a frequent cause, as is scurvy. It occasionally complicates appendicitis, and may arise in the later months of pregnancy from pressure of the gravid uterus upon the ureter.

Pathologically the lesion in the kidney is a chronic nephritis involving the tubules or glomeruli, (usually both) as well as a degeneration of the mucous membrane of the pelvis of the kidney. The source is usually hæmic or ascending infection from the bladder. The symptoms of unilateral renal hematuria are

blood varying from profuse to microscopic, occasionally renal clots and pain of a boring character at the costo-vertebral angle. As before stated cystoscopy is the only reliable means of diagnosing the source of the bleeding, and the ureteral catheter is the only means of making a differential diagnosis between blood coming from the various portions of the ureter and the kidney. This may be accomplished by collecting the urine from different parts of the ureters and seeing if any blood is present, and if so whether it is due to kinks, valves, stricture or ulceration of these tubes. Having located the source of the hemorrhage it becomes necessary then to search for the exciting cause. Time will not permit us to discuss exhaustively the symptoms present in all diseases causing hematuria. They alone are worthy of a separate paper. Only the chief aids to diagnosis will be mentioned. Calculosis has been named as the principal cause of unilateral renal hematuria. It is not necessary that the stones be large. Indeed bleeding may result from a minute stone or even particles of sand. Reports of cases operated have shown hemorrhage disproportionate to the size of the foreign body. To confirm the suspicion of stone we may have to refer in addition to the usual clinical phenomena to 1, the X-ray; 2, Bierhoff's pelvic distention test for the detection of stone in the kidneys (which has been mentioned in one of my former articles);* 3, urine analysis of the catheterized specimen from each kidney. Tubercle bacilli when found in the urine are confirmatory, but in the earlier stage of tuberculosis resource must frequently be had to inoculation experiments upon guinea pigs. It is absolutely imperative that the withdrawn urine from both kidneys be tested separately to avoid diagnostic errors.

Movable kidney is usually discovered by palpation, percussion and the associated digestive, neurotic, and urinary symptoms. Malignancy is exceedingly difficult to diagnose. Casper claims that the early diagnosis of renal malignancy rests upon functional renal examination. He discards cachexia, pain, pus and tissue cells in the urine as well as casts. Tumor is the one other symptom he relies upon. Even here the detection of tumor may be difficult, and tumors are not always malignant. Malignancy, however, occurs in those over forty. The hematuria is profuse and sudden. Urine analysis and the

*The Indications for Cystoscopy, *HAHNEMANNIAN MONTHLY*, November, 1907.

catheterized specimen may show cancer cells. The prognosis and treatment of renal hematuria depends upon discovering the condition which causes it. An accurate prognosis can then only be given. Rest is of importance in all cases. The internal remedies most valuable are calcium chloride, adrenalin, ergot, hamamelis, cantharis, quinine, and hypodermics of mercury in those of syphilitic origin. The mechanical means that are of value are irrigation of the kidney pelvis, with a saturated solution of boracic acid to which has been added a few drops of a one to one thousand solution of adrenalin chloride. This is especially of value in the hematuria of pyelitis. Surgical measures are most frequently employed for the cure of hematuria, and judging from authorities (Israel, Casper, Rosving, Guyon, Cumston and Guiteras), nephrotomy is the operation of choice. It is particularly remedial where the bleeding occurs from pyelitis due to infection, stone and limited areas of tuberculosis. It has been my privilege to observe Guiteras do a considerable number of these operations and nephrotomy has usually been selected. Except in malignancy, trauma, and advanced tuberculosis where, if operative interference was employed, nephrectomy was chosen. Nephrotomy has many advantages. First, it allows for drainage without destroying much of the substance of the kidney; second, it admits of exploration as a guide to accurate diagnosis; third, it frequently relieves the bleeding by discovering and removing the cause where other measures have sometimes failed; fourth, both kidneys may be drained simultaneously. Nephropexy is the operation of choice for misplaced kidney. It may be advantageously combined with nephrotomy or nephrolysis. Harrison and Edebohls insist on kidney decapsulation for hematuria. It is of value for cases arising from chronic nephritis. Partial and total nephrectomy should be reserved only for advanced cases of tuberculosis and malignancy and the result of severe injury.

**INTERNAL CUTANEOUS THERAPY; INCLUDING THE INDICATIONS FOR
SOME OF THE MORE IMPORTANT HOMŒOPATHIC REMEDIES.**

BY

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MR. PRESIDENT, MEMBERS AND GUESTS OF THIS SOCIETY:

Last year it was my pleasure to read a paper before this worthy society titled "Topical Cutaneous Therapy," and in which paper the various questions of local treatment in skin diseases were considered. It is my intention at this time to read a companion paper, "Internal Cutaneous Therapy," and in which paper shall be considered the various factors concerned in the internal treatment of cutaneous affections.

Permit me to begin, if you will, by giving the routine which is followed in my private practice and in dispensary and clinical work as well, that is when it is possible to have the necessary directions carried out, and the patient is willing to give hearty co-operation and to lend a helping hand.

Whenever a dermatose presents itself for treatment, the patient is at once advised what the properly indicated homœopathic remedy has done and can do in the case in question, but that time and patience are very frequently most important factors to be considered, and that topical treatment will only be ordered when and where it is necessary, always giving the indicated remedy alone, when the patient is enabled and willing to understand the law of homœopathic cure.

It, of course, being understood that where the control of secondary symptoms is of such paramount importance that immediate relief is necessary and where the condition is of such a parasitic nature that no remedy would ever alone relieve, the indicated topical remedies are applied.

The foregoing explanations having been made, the patient is next advised that food must be totally abstained from for twenty-four hours; a glass of cool distilled water every hour being allowed and being ordered as a necessary adjunct to the

treatment. One grain of merc. dulc. in divided tenth grain doses is administered during the twenty-four hours, which is followed by a bottle of the citrate of magnesia. A cup of hot water, slowly sipped on retiring and arising in the morning is as well ordered, and is to be continued throughout the treatment.

The patient is now ready to receive the indicated homœopathic remedy, one dose of which is given at bed time, the potency varying according to the patients' individualities and idiosyncracies and according to the results of experience, as to which potency produces the best results.

The patient is next advised to eat only those foods which experience has demonstrated to be harmless; if, however, the patient is neurotic upon the subject of diet, and has abstained from all kinds and sorts of foods, a full diet is at once ordered regardless of the patient's likes or dislikes; if quite to the contrary the patient has been a full and hearty eater, the amount of food consumed daily is cut down one-half.

Before proceeding further permit me at this point to explain why the indicated remedy is best administered at night and why distilled water is preferred to others in the routine of treatment. Night time has always appealed to me as the best time to administer the indicated remedy for the fact that at this time the body is in an absolute state of quietude, and if the remedy be administered just before retiring there is by the time the patient has been claimed by sleep a greater absorption going on because the body is in a more or less of a fasting state and elimination is at the same time more or less delayed; in other words, the patient's entire economy is being affected by the remedy, and there are no other activities going on to detract from the infinitesimal action of the remedy. No more than one dose for the twenty-four hours is administered for the fact that I do not believe that one can expect to get the finer and more definite action of the remedy if too frequent dosage is practiced. Distilled water is advised because of its being an absolutely pure water, and a soft water, it is therefore a most perfect solvent and at the same time acting as a constant flusher, thus stimulating the kidneys to healthy activity and thereby diluting and getting rid of much of the bodily toxins and ptomaines which are often more than responsible for many of the dermatologic affections.

Certain it is that water drinking is quite obnoxious to some

patients, but kind and gentle persuasion will often convince them of the good to be obtained thereby. Unless contraindicated, the patient is advised to drink a glass of the cool distilled water every hour, beginning at least an hour after meals and continuing up until an hour before the next meal. Frequently it is advisable to start the patient on smaller quantities of water when they rebel at the thought of taking a glass full every hour. One patient I have in mind was compelled to start



PSORIASIS.

Woman thirty years of age; has had condition for past ten years. Large annular patches appear on lower limbs and trunk as well. There is keratosis of the palms and soles. Patient was a mill worker and consumed a pound of meat a day and frequently six eggs. The nitrogenous diet was withdrawn and Hydrocotyle 3x was administered. The patient recovered in eight months without local treatment. (Author's Case.)

with a tablespoonful, having an absolute abhorrence for water, now she takes her glass full and seems to enjoy it.

I shall now return to a further consideration of the diet as a therapeutic factor in the treatment of skin diseases; permit me to quote from my article "Modern Thoughts on Eczema," as published in the May HAHNEMANNIAN of this year. "Occasionally a fluid diet is recommended for a few days in the more acute dermatologic affections, milk being recommended as the ideal. Now I cannot possibly see how milk can be considered as a fluid diet, for we are all well aware what happens to it as soon as it strikes the acid medium of the stomach; the

bowel movement often bearing mute testimony to the solidity of the curdled mass. The excess of the nitrogenous diet which we are all more or less addicted to is more than responsible for many attacks of skin diseases; and is certainly accountable for their existence and persistence. Certain it is that there is a close relationship existing between the nitrogenous diet and the dermatologic affection known as psoriasis. There is hardly a patient with this disease who has not noted for him-



DERMATITIS VENENATA.

Rapidly spreading with tendency to become pustular. Associated with more or less pain and worse in cold air. Case ran a short course with the internal administration of *hepar sulph.* Sx. pain and burning ceasing at once. Hot water was applied locally. (Author's Case.)



RING WORM

On lower limb associated with marked irritation due to copious exudation, which was more or less offensive. Shows the characteristic elevated periphery with marked vesiculation. Beginning lesions are noted beyond. Case responded promptly to Tellurium 6x without local treatment; one dose at bed time. (Author's Case.)

self that when he abstains from a meat and egg diet his psoriatic lesions become less and their congestion decreases and whereas when a full nitrogenous diet is indulged in very frequently attacks of psoriasis are brought on. A change in diet in cutaneous affections is often productive of good; it is very frequently my habit to order a complete turning upside down of the patient's dietary regime, even if the diet is presumed to be

an ideal one, with the astonishing result, that very frequently healing rapidly sets in.

I have almost bravely gotten over the old adage "avoid sweets and starchy foods" for I have frequently failed to see where a moderate amount of these foods has any deleterious effect upon dermatologic affections. Certain it is that many individuals cannot digest these substances, then of course they are to be prohibited, but the general restriction of these foods for all cutaneous affections, is not at all necessary.

Of more paramount importance is the manner in which foods are taken than is their character. It is not so much what a pa-



ICHTHYOSIS NIGRICANS.

Girl twelve years of age. Limited more or less to the arms and legs, both anteriorly and posteriorly. Suffers no inconvenience. Always better in the summer time. Scales about the ankles and the bends of the knees have a decided blackish, and at times greenish hue. Olive oil is being applied and Thuja Sx is being given internally, one dose at bed time. (Author's Case.)

tient is accustomed to eating, as it is how he eats it; whether his mind be calm or troubled, whether he eats slowly or quickly, whether he eats regularly or at irregular intervals; these are the factors to be pointed out to our patients if we would want a most potent adjuvant in the cure of their skin ills.

We are now ready to take up the consideration of a few of

the more important homœopathic remedies, and I must here again reiterate, as I have done many times before, that the homœopathic remedy properly administered and indicated, has and will continue to cure many of the cutaneous affections, even some of those which are micro-organic in character, and without the use of topical applications. This fact has been many, many times demonstrated in our public dispensaries and clinics where it is almost impossible to have patients carry out the routine as given for local treatment, having wandered from one old school institution to another, until at last they come to our homœopathic institutions in despair, to see what

**VITILIGO.**

Colored lad fourteen years of age; has had a gradual loss of pigment during the past four years. Suffered at times with pricking sensations on the affected areas. The patient has been on *Silicea 6x* for the past six months. No apparent change so far has been noted. The case is still under observation. (Author's Case.)

**ACNE ROSACEÆ.**

Marked paleness of unaffected skin giving a decided contrast. Nose at times presented a bluish hue as if frost bitten. Papules and pustules on cheeks and forehead; nose decidedly oily and an absence of heat upon the affected parts. Patient had been a sufferer with indigestion for a long time. No local applications were used; the diet was regulated. *Agaricus 6x* was given, one dose at night and in six months, the patient was well. (Author's Case.)

can be done for them; and very, very frequently they are either quickly cured or markedly relieved.

In taking up the consideration of more important remedies I shall merely mention a few of those which clinical experience has demonstrated to be of excellent value.

ACONITE is especially useful in pruritis without manifest

eruption and which is of recent occurrence; the sensations are those of tingling, crawling, pricking, or biting; usually worse at night and on face and extremities. There is that usual aconite fear that something is going to happen and this time it is some dread skin eruption is about to appear.

Erythema multiforme occasionally responds to aconite; lesions on back of hands are urticarial in character; there are erythematous spots on face; the limbs show discolorations in various forms; there is marked restlessness; the sensations are those of pricking and itching; attacks follow anger or fright. Aconite seems to give the best results at the sixth decimal attenuation.

APIS—especially useful in urticaria when the blotches and wheals are sensitive to the touch, with burning and stinging, the sensations are always worse from heat and better after bathing with cold water. While there is feverishness there is a marked absence of thirst. Suddenly appearing swellings of all sorts and forms, often changing their location from one place to another, even appearing on the mucous membranes, rapidly respond to apis. Swelling of the hands and lips, especially in the fall and spring of the year from no demonstrable cause are relieved by this drug. Dermatitis venenata especially when attacking the face causing it to puff up so that vision is impossible, is quickly relieved by apis. This drug is as well useful in erysipelas when the attacks are upon the face, extremities or head, being edematous and pale red in nature. The third decimal dilution seems to give the best results.

BELLADONNA has demonstrated its usefulness in acne rosacea, especially in full blooded individuals, in the earlier stages, where there is associated sensitiveness to the touch; at the time of the menopause, in excitable women, quite useful, in the secondary stages when there is associated pustular formation; there is great heat in the cheeks associated with throbbing. Belladonna as well does good in erysipelas, when associated with cerebral symptoms, marked sensitiveness, early stages associated with much redness aggravated by heat. The third to sixth attenuation seem to give the best results.

CANTHARIS is of use in those forms of dermatitis venenata which are associated with bleb formation rather than vesicles; is useful as well in burns which are associated with rawness and smarting and are relieved by cold applications. Cantharis

is as well of use in the acute vesicular forms of eczema, especially when on the hands and face, being associated with smarting, burning, itching sensations. Secondary eczema about the scrotum and genitals following excessive perspiration about these parts usually responds to cantharis. The third decimal dilution seems to give the best results; dilutions of the same remedy in water applied locally affords wonderful relief.

GRAPHITES is of service in those forms of sub-acute or chronic eczema where marked vesiculation or a sticky serous exudation is present. Especially of the genitals, face, ears and scalp. It is especially indicated in eczemas about the ears when there is not much thickening or crusting, but there is a tendency to cracking and bleeding; squamous eczema of the palms has responded to this remedy; and is useful when the dorsal surfaces of the hands and arms are affected, there being much infiltration and fissuring. Eczemas of the vertex, with marked crusting and foul odors of decomposition, from the dried secretions, respond to this remedy. All conditions itch more at night, are worse from warmth, and the scratching seems to increase the exudation. Graphites has as well been of service in altering the appearance of scars and is of service in the early stages of keloid and fibroma. Dilutions from the sixth to the twelfth seem to act best, but the higher dilutions are at times indicated, especially when the case is a typical one.

HYDROCOTYLE. This drug has more than once demonstrated its usefulness to me in psoriasis and when especially indicated never fails to do good; it is to be remembered, however, that the nitrogenous diet must be absolutely prohibited. Hydrocotyle is indicated in psoriasis when the lesions are circinate or become gyrate in outline, the lesions are on the trunk and the extremities; and at times on the palms and soles with marked thickness of the epidermis. The sixth decimal has done the most good in my hands.

Lastly, I shall mention the indications for PETROLEUM in eczemas. Petroleum is indicated in those sub-acute and chronic cases which are associated with fissures. The lesions are between the toes and fingers, between the thighs and on the scrotum, back of the ears and on the occiput. The opposing surfaces have a red, raw appearance, the discharge being profuse and accompanied with smarting and burning; a foul odor is at times present. The finger tips are at times rough and thickened with deep fissures.

SANGUINARIA IN LA GRIPPE, DISEASES OF THE CHEST, AND NEURITIS.

BY

WALLACE MCGEORGE, M. D., CAMDEN, N. J.

(Read before the New Jersey State Homœopathic Medical Society, at Asbury Park, October 6, 1908.)

By request of the chairman of the Bureau of Materia Medica I give you a few suggestions as to the use of sanguinaria in the class of cases named in the title and on account of the time limit, I refrain from any reference to its use in other morbid conditions.

I have selected the blood root for two reasons, because it is so pretty to look at when the flowers come out in the spring, and because it is so reliable in the class of cases in which it is indicated. I was in hopes I could bring you a specimen of the plant in flowers, but those beds that I have seen, bloom from the middle to the twenty-fifth of April, and the bloom is over for this year. The petals are bright white, the stamens yellow, the leaves dark green, the stalk white, then yellow where it joins the root, the root is dull red on the outside, blood red on the inside, or when it is cut, hence the popular name, blood root.

Sanguinaria canadensis is essentially an American remedy, and has probably cured more cases of the American sick headache than any other remedy, but it will not cure every headache, and is only indicated when there is prostration or exhaustion. Hering, in his "Guiding Symptoms," gives all the symptoms calling for its use in our national headache.

In the depressing symptoms of *la grippe*, we have a good picture of *sanguinaria*. Large doses of the drug reduce the pulse in calibre and frequency and produce nausea, vomiting, vertigo, faint feeling, irregular heart action with great prostration. "It slows the respiratory movement by prolonging the pause after expiration."

Where there is languor, prostration, headache, cough, pain in the chest with great desire for rest, *sanguinaria* will relieve in from four to twelve hours, and next day life will be worth living. When the patient don't care whether he lives or dies, give *sanguinaria*, and next day he will listen to what you say, and won't mind looking at the paper to see what is going on

around him. I know of no other remedy so reliable in la grippe as sanguinaria. Under *bryonia* he must rest and keep still. The sanguinaria patient feels better from resting, wants to be quiet, but will move or change his position without complaint, if he can make himself more comfortable by the change.

In diseases of the chest, the breath and the sputa smell badly. The smell is so offensive he can't get rid of it, and it makes him sick. When a patient has a dry cough which wakens him from sleep, and does not cease until he sits upright in bed, think of sanguinaria. If in addition the cough continues until flatus is discharged upwards and downwards, you need seek no further, for sanguinaria is the only remedy.

In incipient tuberculosis, or consumption in its early stages, when the expectoration and breath are exceedingly offensive, with hectic flush, or circumscribed redness in one cheek, sanguinaria will win out many times.

Dr. P. W. Andrews uses sanguinaria in lobar pneumonia when there is great hoarseness, or when the expectoration is thick, green, glutinous, offensive; also in hydrothorax, where there is sharp pains in the lungs with shortness of breath; also in severe asthmatic conditions.

In pneumonia, with very difficult respiration, when the cheeks and hands are livid or purple, with offensive breath and sputa, with prostration, think of sanguinaria.

In patients suffering from valvular troubles, where the heart trouble is aggravated by a fresh attack of rheumatism, and the lungs have also become involved, sanguinaria will enable us to pull our patient through. In cases where all these symptoms are present, and when the kidneys are throwing off large quantities of earthy phosphates, and the patient is losing flesh rapidly, if the face gets the circumscribed redness of one cheek, sanguinaria will save your patient and start him well on the road to recovery. In one such case where three homœopathic physicians who had seen the case with me had given an unfavorable prognosis, sanguinaria snatched the patient from the jaws of death, and in three months he had gained forty pounds, of the sixty-five pounds he had lost during his protracted illness.

In neuritis, it is a good friend and helps us out of many a hole. When I was in college, a patient came to the college clinic, suffering with pain or rheumatism in the right shoulder joint. This man was a shoemaker, and he could not work at

his bench on account of the pain in the shoulder when he pulled his waxed thread all the way out. The late Professor Henry N. Guernsey, who was conducting the clinic before the class, examined this man and finally gave him rhus, because he understood the man felt better from moving.

When the Professor went home, he studied out this case, called to see the patient at his home and examined him more thoroughly. He found that the man could not sleep at night on account of the pain, and it was the pain that made him get up and move about, not that he wanted to move. Doctor Guernsey gave him sanguinaria 200, and next week when the man came back to the clinic he said that he got some rest the first night and after that he could sleep all night and could work at his bench without any pain. He was given seven powders of Sac. Lac. and told to return next week if the pain returned. He did not come back, but one of the students, who was skeptical of the curative powers of Sac. Lac. in such severe cases, hunted him up and found him working at his cobbler's bench, free from all pain, and then he admitted there was some power in Dr. Guernsey's high potencies.

We used to call all these pains rheumatism. Now we are more particular in diagnosis and call these troubles neuritis. Lippe's indications for sanguinaria in rheumatism or neuritis are as follows: "Rheumatic pains in *right* arm and shoulder, worse at night in bed; cannot raise arm; motion (turning in bed) makes it much worse. Rheumatic pain in *left* hip. Rheumatic pain inside of right thigh. Rheumatic pains in limbs; pains in those places where the bones are the least covered with flesh, but not in the joints; on touching the painful part the pain immediately vanished, and appeared in some other part." This symptom is a keynote for this remedy. Hering recommends sanguinaria in acute inflammatory and arthritic rheumatism.

In conclusion, let me say that while I use sanguinaria in the high potencies exclusively, I have seen in other physician's practice good results follow its use with low potencies. It will be better to use the crude powder of the blood root, when it is the remedy, than not to use it at all.

When sanguinaria is indicated the low potencies will do some good, but the high potencies will work quicker, the effects of the drug be more lasting, and there will be less aggravation of the symptoms than when the crude preparations are

exhibited. When the high potencies do the work quicker, better and more profoundly than the low, he would be a dolt who would not use that potency which would do the most good.

PHLYCTENULAR OPHTHALMIA.

BY

E. G. WHINNA, M. D.,

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THIS disease has many synonymous titles, such as conjunctivitis phlyctenulosa, conjunctivitis pustulosa, scrofulous ophthalmia, eczema of the conjunctiva, phlyctenular keratitis, conjunctivitis exanthematica, conjunctivitis lymphatica, etc., but I prefer to use the name given as the title of this paper, as the disease may involve either conjunctiva or cornea, or as often happens both at the same time.

It is one of the most frequent of eye troubles and is found usually in those having a scrofulous history. It is essentially a disease of youth, and abounds among the poorer classes, where the children are illy nourished, living in damp, poorly ventilated houses, and where no attempt is made at cleanliness. In children of the better classes it may occur after an attack of the exanthemata, particularly after scarlet fever. Foundling asylums and infants' homes furnish a large proportion of our cases.

In addition to the constitutional cause given, certain dietetic errors are said to act as predisposing causes, such as the eating of pastry, candy, and other unwholesome foods, also the drinking of tea or coffee. The cases seen at the Home have been in children between two and four years of age, and the girls seem rather more prone to it than the boys.

As a rule it makes its appearance suddenly; the symptom first attracting attention being the photophobia; the child wants to keep the head turned away from the light; and if forced to face it, will close the lids tightly. The desire to close the eyes

is, however, not a true photophobia, or fear of light; but is as much a desire to prevent the air striking the eyes, as the child will often bury its head in a pillow even when in a dark room; if, however, this exclusion of light is encouraged or even permitted for a few days, a true photophobia will develop. Excessive lachrymation is usually present, and the constant flow of water from between the closed lids may cause cracking at the external canthus. If the child is old enough to talk, it will complain of smarting or burning pain as in an ordinary conjunctivitis. Considerable difficulty may be encountered on attempting to make an inspection of the eyes, on account of the swollen condition of the lids. Children usually make the greatest resistance to the forcible opening of the lids, in fact a state of inversion of the lids may be produced by the violent way in which they are held together. In making the examination, the child should sit on an assistant's lap, and then be laid over backwards on the examiner's lap, and its head held firmly between his knees; then with a small retractor the upper lid can be pulled back and the lower one held down by the finger, thus exposing the entire ball. What will be seen depends upon the number and the location of the phlyctenulæ. We usually find one or more elevated patches on the conjunctiva, from one to three millimetres in diameter, and with a slightly abraded surface. If the cornea is involved, there is a slight elevation of the surface epithelium which soon breaks down forming a corneal ulcer.

When the conjunctiva alone is affected, only the conjunctival vessels are involved and especially those supplying the part where the phlyctenule is located. Thus we usually have a triangular zone of infection, with the apex at the site of the phlyctenule. If one should be seated near the corneal margin, there will be injection of the ciliary vessels of that side; but if located at the centre or on various parts of the cornea, there will be complete pericorneal injection. As one characteristic feature of this disease is its tendency to recurrence, we will find this hyperæmia fading away in a few days, only to flash up again with each fresh eruption of phlyctenulæ. There will also be found an injection of the palpebral conjunctiva, worse during the attacks, but persisting during the interval.

The treatment of this disease is essentially that of *malnutrition* plus the local treatment of the eyes. Strict attention should be paid to general hygiene, especially to secure outdoor life a

considerable part of each day, irrespective of any photophobia that may exist. As invigorating measures, spongings with cold water are of service; also a sojourn in the country, especially at the mountains or seashore. The question of feeding is of utmost importance; no sweets, pastry or greasy food should be allowed and feeding between meals should be absolutely forbidden. The bowels should be kept open by the free use of water and fruit if possible, or by the use of mild laxatives if necessary. Locally anything like a poultice or bandage must be strictly avoided. Dark glasses may occasionally be of service to prevent the wiping and rubbing of the eye. Absolute cleanliness must be insisted upon, and to secure this, the eyes should be washed several times daily with warm borated water. Instillation of cocaine, 1 per cent. sol. are sometimes useful to lessen the sensibility to light. In obstinate cases, finely powdered calomel may be dusted upon the surface of the eyeball once daily. If the calomel does not seem to fill the bill, an ointment may be used, consisting of the yellow oxide of mercury and cosmoline, strength 1 gr. to 3j. This is introduced into the conjunctival sac by means of a glass rod or brush, and is then rubbed about so as to be distributed over the whole conjunctiva.

The medicinal treatment consists in the administration of cod-liver oil and of such homœopathic remedies as may be indicated.

Arsenicum alb., scrofulous diathesis, great photophobia.

Calcarea carb., glandular enlargement.

Calcarea yod., when *calcarea carb.* fails.

Conium, photophobia and lachrymation, spasmodic closure of lids marked.

Graphites, similar to *arsenicum*, worse in A. M., canthi cracked and bleeding, as is also the alæ of nose.

Hepar sulph., photophobia and lachrymation intense, worse in daytime, worse from touch, better from warmth, canthi bleed easily.

Rhus tox., recurrent form, enormous amount of thin scalding water runs from eyes.

Treatment should not be intermitted in the interval between the attacks, but continued until the liability to them is quite removed.

REPORT OF SEVERAL CASES OF PERTUSSIS TREATED WITH THE ABDOMINAL BINDER.

BY

CHAS. J. V. FRIES, M. D., PHILADELPHIA.

(Read before the Wm. B. Van Lennep Clinical Club.)

DURING the past winter, spring and summer I have treated several cases of pertussis with the abdominal binder and the cases I am about to report I gave no medicines, substituting entirely therefor the abdominal binder, which I firmly recommend in all uncomplicated cases. The large percentage of complications in pertussis and its high mortality make any new method of treatment worthy of consideration, especially when we take into consideration the number of drugs (with their usual depressing heart action) all of which have been tried with uniformly poor results. Dr. Kehun's report of Nov. 23d, 1907, embraced over 500 cases that were treated with the binder, and of these some 90 per cent. showed marked improvement—in checking vomiting and in gain in weight. In the one hundred and twenty-five cases in which complications developed, the complication was usually present when the binder was first applied. The complications are usually bronchitis, broncho-pneumonia, and tubercular broncho-pneumonia, from an added infection of the inflamed lung or the bronchial glands. Quiescent tubercular deposits may also be called into activity, and frequently hernia. Dr. Kehun in his report has given an excellent description with several illustrations of the method of application of the binder, and I believe with him that the success of the treatment depends on the making and mode of applying the binder. From my experience with the binder I believe it to be of great help in pertussis in shortening the period of disease, checking the vomiting and reducing the number and severity of the attacks. I further believe that the earlier the binder is applied the better, and in infants especially the results are wonderful. In some few cases there will be a return of the whoop at intervals for months whenever bronchitis is contracted. This is not a recurrence but is merely a habit spasm.

Cases follow:

Case I.—John A., aged 6 weeks; fed at breast; child first seen Dec. 24, 1907; had been coughing one week; had been

vomiting four days; seen night of Dec. 24; diagnosed as pertussis; requested mother to improvise binder; on this visit spasm of coughing occurred as frequently as every 8 or 10 minutes, followed by profuse vomiting of contents of stomach and glary mucus; on following day coughing less in frequency and vomited but twice on the fourth day, attacks of coughing varying about three or four per hour and vomiting ceased, and attacks of coughing thereafter were mild. On the eighth day very slight cough. Baby had increased in weight. Baby was discharged January 9, 1908, cured. Duration: 18 days. This case received no medicine.

Case 2.—Margaret McL., aged 1 year. This child had typical pertussis for three weeks when I first saw her. Attacks of coughing severe and frequent, vomited most of food, her parents being neighbors of Case No. 1, whose history I just related, noted results and called me in to prescribe. Had mother make binder for the child, and by third day vomiting had ceased. The attacks grew less in frequency and severity. By the end of week child was much better. No medication used. By end of fourteenth day case was discharged.

Case 3.—Mary M., aged 3 months; fed at breast. First seen January 21, 1908; report of child having had severe cold for five days and had been vomiting for two days. Very weak for past 24 hours. On examination elicited many fine rales throughout chest. Temperature 103° F.; respiration 40. Diagnosed pertussis and broncho-pneumonia; ordered aconite 2x dil. for sedative effect and mother to prepare binder. On the second day child was much improved and retaining food; stopped medicine; continued binder. By the fourth day there was no vomiting, and cough had disappeared. Discharged child February 2d as cured.

Case 4.—Irene J., aged 2 years. This child had had whooping cough for some three or four weeks. Attacks of coughing were severe, vomiting food frequently and child was losing weight. Had mother make binder, and in three days vomiting had ceased and paroxysms of cough lessened in number and severity and by the end of two weeks the child was entirely rid of cough, and was discharged. Her facial appearance took on a healthy glow. She became playful, active, etc.

Case 5.—James McL., aged 6 years; Martin McL., aged 4 years; Walter McL., aged 2 years. Brothers, all had pertussis and when first seen had had a cold, cough and vomiting with

cough from eight to ten days. I prescribed a binder for each of them, much to the mother's amusement. Her Irish wit cropped out—and to be sure—a mere rag curing children dying with whooping cough. I, however, persisted and the order was obeyed, and a binder was applied to each of the three boys. In James and Martin vomiting stopped after second day and they were entirely rid of cough in less than 20 days. In Walter's case vomiting persisted for five days and cough continued, especially severe attacks at night, but at end of second week was much improved, and at end of fourth week was practically well and was discharged.

Case 6.—Carrie H., aged 6 years. This child had had pertussis five weeks when I first saw her. The mother had taken her to several hospitals. The case had been diagnosed catarrhal pneumonia and the mother told that the child was too sick to be brought to the hospital clinic. I saw the child that same night, March 30, 1908. Two days later the child developed a marked and typical case of measles, which disappeared in five days. During this time the cough was severe and no food was retained. On April 4th I had the mother apply binder. After said application the child vomited but a few times, and by the 10th of April the cough had entirely disappeared.

Case 7.—Thomas F., aged 7 months. History.—Had had a cough for two weeks and vomited after and during coughing spells; contracted measles, which aggravated his cough and frequently vomited his food. He developed croupous pneumonia at the left base posteriorly and at the right apex. The child did exceptionally well, and the consolidation gradually cleared, but a very severe spasmodic cough continued that kept the child awake most of the night, and conditions became desperate. I had tried several drugs without any results and I became alarmed that between the coughing, vomiting and weakness the little fellow would expire. I finally ordered the binder and that very night the child slept six hours and vomited only once in three days, cough stopped and improvement in general aspect noticed. Gain in weight. Discharged at end of 20th day as cured.

Case 8.—Jerry M., aged 8 years. History of child having had measles, scarlet fever, diphtheria, pneumonia, and was never very strong. First seen on February 5th, when he had been coughing whoop characteristics for two weeks, and had been vomiting for one week. On examination there was

found mucus rales all over the chest, anteriorly and posteriorly, and at the left base posteriorly impaired resonance and bronchial breathing. Child was put to bed on account of weakness; binder applied without much success, although the attacks were not so frequent or severe. Whenever binder was removed he would beg to have it replaced; he said it gave him so much relief; he was in bed six weeks and I discharged him at end of this period, when his lungs were practically clear. He was eating well and gaining in weight, cough and vomiting all having disappeared.

Case 9.—Harry J., aged 9 years. Had severe whooping cough for three weeks. Attacks were quite severe; vomited blood with almost every attack of cough. I had the binder made for child and in addition I gave one drop of *acalypha indica* every two hours; in two days vomiting of blood ceased, when I discontinued medication and continued binder alone; in five days all vomiting ceased and resting easy with about five or six paroxysms of cough daily. By the end of the second week cough entirely disappeared and at the end of 18 days case was discharged.

A COMMUNICATION.

THE PHARMACOPOEIA QUESTION AGAIN.

EDITOR OF THE HAHNEMANNIAN MONTHLY:

With your kind permission, I would like to make a few comments on Dr. Carmichael's curious reply to my letter published in the September issue. My letter was really a protest against what I, and others, thought was Dr. Carmichael's un-called-for fling against homœopathic pharmacists who make their preparations according to the rules that had prevailed down to the appearance of the book of which he seems to be the chief spokesman, rules that broadly followed the directions given by Hahnemann and the various provers. In his reply, my esteemed opponent lugs in a lot of matter totally irrelevant; as, for instance, that in this or that tincture, "Mr. Anshutz and pharmacists who follow the directions of a book called the *American Homœopathic Pharmacopœia* do not even follow Hahnemann's directions," or "Mr. Anshutz and the *American Homœopathic Pharmacopœia* prepare," etc., or "Why does

Mr. Anshutz and the pharmacy with which he is connected," etc. All this and other things of similar import are entirely irrelevant to the topic under discussion.

The whole effort of Dr. Carmichael and other gentlemen who defend the new Pharmacopœia (for it has from the start been on the defensive) is concentrated in an effort to prove that the 1 part drug to 10 of alcohol tinctures are as strong as those made "with equal parts drug and alcohol." The reader may please himself as to which is the stronger. Personally, I cannot see that it makes much difference in homœopathic practice whether a drug is made from "equal parts" or "one to ten," as that practice is not ruled by "drug strength" but by the homœopathicity of a drug to a given disease. A new homœopathic pharmacopœia that is practical might be a very good thing, and would be adopted without question, I think, by all homœopathic pharmacists; but this new book is not a practical one. Country doctors who prepared some of their own tinctures have told the writer that under the old rules they could make "beautiful tinctures" but not under the new rules. Why, I do not know. Also one of the gentlemen whom Dr. Carmichael quotes as authority for the book told me that he did not know that he had anything to do with it until he saw his name on the title page.

But aside from this, and from the little controversy with Dr. Carmichael, there is another point concerning this book that may in the future loom very large in homœopathy, and sooner or later must be met. A strong effort is being made to have the new pharmacopœia adopted as official by the United States Government. The recognition of homœopathy is a very desirable thing, but it is not desirable as a "Greek Gift." When a thing is adopted by the Government the effect is sometimes very far-reaching. Bearing this in mind, read the following found on page 41 of the book in question:

"* * * * the limits of divisibility, for our purpose at least, are more than approximately placed in the neighborhood and somewhat below the 12th centesimal or the 24th decimal degree of attenuation of soluble substances."

Again on page 43:

"The limit of divisibility has been made the subject of careful research, which disclosed the fact that this limit, far from being indefinite or infinite, had distinctly discernable limits which it was impossible to transcend. By the mechanical

method as used by us, all hard, practically insoluble substances are reduced in part to a degree of fineness in which each minutest particle, measuring 1-2000 to 1-3000 of a millimeter cannot be reduced any further by any method so far devised. Another considerable part of the substance, *e. g.*, charcoal, leaf gold or copper, does not reach this degree of fineness, and is at present in large fragments in the most carefully made triturations."

This limits the homœopathic attenuation, or potency, to the 12th centesimal. If the book as it stands is made official, this will be the official legal limit, and you cannot get around it by saying that the book does not prevent pharmacists from going "higher." A vial of any drug labeled over the 12th, say *calcarea carb.* 30, will be falsely labeled according to the Pure Food Law, and those doing it are liable to fine or imprisonment.

Incidentally this rule laid down by the pharmacopœia officially excludes all reported cures made with any medicine above the 12th potency; for above that potency there is no medicine if the limits are reached at the 12th. It places all such reported cures in the category where our friends of the dominant school say they belong, *i. e.*, in that of "suggestion." Whether there is nothing but alcohol, or milk sugar, in the 15th potency or higher, and whether the cures are, or are not, valid, is a totally different question, as is also the question as to whether such things have any right to be in a pharmacopœia, and especially in a *homœopathic* pharmacopœia.

The maker (or makers) of this book chose to base it on what he termed "modern science" rather than on the science of homœopathy, and what is the result? But the other day Jousset scientifically demonstrated the activity of a drug in the 30th potency. Jousset is no high dilution visionary. Modern science to which the book appeals has swept far beyond "the 12th centesimal," and left the science of our official book among the things men call antiquated. Do homœopaths want to stand for this?

The real question is not one of "tincture strength," or of "trade jealousy," or "rival books," or any other petty thing, but something very vital to the future of homœopathy. "Endorsements" loyally hurrahed through societies will not alter grim facts.

E. P. ANSHUTZ.

EDITORIAL

THE THERAPEUTIC ADMINISTRATION OF TUBERCULIN.

IN a recent article in the *Lancet*, entitled "A Contribution to the Study of the Administration of Tuberculin in Pulmonary Tuberculosis," Dr. Arthur Latham, the celebrated English authority on tuberculosis makes some statements that are of great scientific importance, and that are especially interesting to homœopaths. While the entire article contains much valuable material we desire to call attention at the present time to his statements relating to the dosage of tuberculin and to the effect of its oral administration.

A brief review of the history of tuberculin as a therapeutic agent may not be out of place. The first physician to use the products of tubercle bacillus in the treatment of tuberculosis in modern times was by Dr. Swan, a homœopathic practitioner of New York, in about 1874. Dr. Swan's preparation was made by triturating the sputum of a tuberculous patient, and to this preparation he gave the name *tuberculin*. Sputal tuberculin, however, had been employed in much earlier times for we find that more than two hundred and fifty years ago, Dr. Robert Fludd, an English physician, taught that the sputum of a tuberculous patient would cure consumption. This does not lessen Dr. Swan's credit, however, as we have strong reasons to believe that he was not familiar with the writings of Dr. Fludd and reached his conclusions as to its value from entirely different premises. Dr. J. Compton Burnett, a homœopathic practitioner of London, who has written quite extensively on this subject, for several years made use of Swan's sputal tuberculin in his practice, but later made a preparation which he termed *bacillin*. This preparation is made by removing some tubercles from the lung of a person who has died of pulmonary tuberculosis and triturating them. This would naturally contain everything pertaining to the tubercular process—bacilli, toxins, debris, etc. In a general way it corresponds to Koch's "New" tuberculin which is made by triturating virulent tubercle bacilli in sterile water.

In 1891, Dr. Burnett published the second edition of his work on the treatment of tuberculosis by tuberculin and bacillin, both of which he had employed many years before Koch discovered his tuberculin and in fact even before such an organism as the tubercle bacillus was known. In the preface to his little volume, published just after the excitement following Koch's discovery of tuberculin was beginning to wane, Dr. Burnett said, "Koch and his world-famed remedy have come and gone. But they will return again anon and * * * * remain—only the dose will get smaller and smaller until the long-contemned homœopathic dilutions will acquire the rights of citizenship in the universities of the world. *What now bars the way to the further progress of Kochism is the awful admission that will have to be made of the therapeutic efficiency of the infinitesimally small*: the little dose is the great barrier to its onward march: the barrier will be knocked down in time, and then what a rush there will be to prove it. Homœopathy is the winning horse at the Medical Derby of the world, and presently will be hurried past the winning post by Orthodoxy itself as the rider."

When these statements were made by Dr. Burnett they were, of course, considered as the ravings of an enthusiast and unworthy of serious consideration. The fact that he was guided by the principles of homœopathy in making these predictions served only to make them appear more absurd to the orthodox medical man. Let us compare the words of Dr. Burnett with the views expressed by Latham in the article in the *Lancet* previously referred to. Dr. Latham says: "A brief trial of tuberculin in the doses recommended by Koch led to its emphatic condemnation at the hands of most leaders of medicine at that day, although Koch's work was founded on the sound scientific basis of active immunity. The profession in this country, after a short trial of the remedy, allowed it to fall into discredit and disuse. *It apparently never occurred to any of those who so roundly condemned, and who, it may be added, still continue to condemn, tuberculin, that the ill-effects produced were due to an improper use of the remedy, and that tuberculin, like many other remedies which do harm when given in excessive doses, would give good results when given in proper doses.*" (Italics ours.—EDS.)

After condemning the dosage of tuberculin originally recommended by Koch, Latham goes on to state that the proper dose

varies with different individuals and that in some patients as little as 1-100000000th of a gramme will cause a rise of temperature.

One cannot compare these statements of Burnett and Latham without being impressed with how completely and how accurately Dr. Burnett's prophesies have been fulfilled, even to Orthodoxy riding Homœopathy to victory. But there is another great truth that forces itself upon us by comparison of these statements, namely, that a single individual, guided by the principles of homœopathy, was able to state conclusions that the old-school were only able to reach after seventeen years of experiments and failures, involving the sacrifice of hundreds of human lives. Shades of Hahnemann! of Hering! and of all pioneers of homœopathy! would that you might have lived to see the day when a member of the dominant school of medicine standing in high repute dares to state that physiological effects may be observed from the administration of a remedy in what would correspond approximately to our seventh decimal dilution. And what, let us ask, must be the feeling of some of our old-school friends, who have so long made merry over the idea of a homœopath placing one drop of aconite in a glass of water and expecting therapeutic results therefrom, who now see one of their own authorities, after careful scientific investigation, recommending that tuberculous patients be treated by dissolving one drop of tuberculin in a bucket full of water (a gallon and a half, approximately) and a few drops administered at a dose every two or three days! *Magna est veritas et prevalebit!*

Dr. Latham's investigations as to the effect of tuberculin when administered by mouth are of great practical interest to clinicians of all schools of practice. He finds that when tuberculin is administered on an empty stomach the same effects are produced on the temperature curve and on the opsonic index as occur when the subcutaneous method is employed. As far as could be determined by the experiments a dose given by mouth is equal to about half the same dose given under the skin. He further states that the absorption from the stomach is rapid and where an excessive dose is given symptoms of intoxication appear in from one to two hours.

While the oral or subcutaneous administration of tuberculin has nothing to do with its homœopathic relationship, it is true that the confirmation of the efficiency of this remedy when

given by mouth will do much to make it more generally popular among practitioners. There were certain features about the subcutaneous administration of the remedy which, while not dangerous provided the dose was a proper one, made it inconvenient and even bothersome for use in general practice. Dr. Latham's investigations have confirmed two facts that fully reward him for the careful and painstaking work he has carried out, namely:

- (a) The therapeutic value of tuberculin in infinitesimal doses, and
- (b) The efficiency of this remedy when given by mouth.

THE PATHOGENESIS OF PHLEGMASIA ALBA DOLENS.—G. Keim believes that this disease is not entirely due to a puerperal infection, but rather that many circumstances seem to indicate that it is the result of the action of chemical substances derivable from the uterus, or from such as arise in the intestines. For in spite of the advances made in obstetrics by antiseptics and asepsis, the number of cases of the disease has not diminished. Again, just in cases of serious infection, as after an infected abortion, where the development of the disease is to be expected, it rarely occurs. But it is in such cases where the puerperium seems to pursue an entirely normal course, that some time after the delivery we are astonished by the appearance of phlegmasia. Since the cause of the disease is a thrombosis, such causes should be studied which independently of an infection can induce such a change in the blood vessels. An increased coagulability of the blood may be due to changes in the liver, such as often occur during pregnancy, for it is well known that the liver produces a substance hindering the coagulation of the blood, whose diminution in the circulation may result in an increased coagulability of the blood. Similar effects may proceed from coagula retained in the uterus, since the coagula form from the development of a fibrin ferment, and these effects may also come from the water of intrauterine injections, or from the sublimate used in the same. During pregnancy the blood is also much richer in fibrin than usual, 4 to 4.8 instead of 3 pro mille. All these circumstances may contribute to the formation of thrombosis in the uterine veins, which may then extend further to the abdominal veins and may give rise to aseptic phlebitis. The author then speaks of intestinal conditions such as constipation or catarrhal conditions from which may arise an auto-intoxication from abnormal ferments engendered. Their action may not only be direct but also by influencing the liver as above indicated.—*Abstr. in Zentralbl. f. Gyn.*, 1908, 1072.

GLEANINGS

THE TREATMENT OF TUBERCULOSIS OF THE UPPER AIR PASSAGES.—Gleitsmann, *New York Medical Journal*, July 4, 1908. The author considers this subject under five sub-divisions:

1. Nasal tuberculosis.
2. Tuberculosis of post nasal space.
3. Tuberculosis of accessory cavities.
4. Tuberculosis of pharynx.
5. Lupus.

There are four varieties of nasal tuberculosis: (1) Tuberculosis ulcer; (2) Diffuse infiltration; (3) Tuberculoma; (4) Lupus. The treatment depends upon the character and intensity of the disease, and can be studied from various points of view.

Locally, good results are reported from paramon-chlorphenol, a drug of great merit in non-ulcerating laryngeal tuberculosis, and salicylated creosote plaster. Mangelau has used phenol sulphonicinate. Of caustics, the following have been recommended: Undiluted carbolic acid, lactic acid of different strengths, a mixture of lactic acid, formalin, and chromic acid (by Barwell); tamponing the nasal cavity with 80 per cent. lactic acid solution, the latter to be kept in place three hours. Greenberg reports a cure of tubercular ulceration of the nose by treating with potassium iodide. Tuberculin preparations are also of decided value in many cases.

Finsen light and the Rontgen ray have not been used so much in tuberculosis as in lupus. The difficulty in throwing the Rontgen rays into the deeper regions of the pharynx and larynx has been overcome by the polyphus tube of Mader. During recent years good results have been reported from a protracted influence of sun rays, intensified by a permanent painting of the diseased parts with 5 per cent. eosin during the treatment.

There are many cases where all treatment appears inefficient and where surgical interference is indicated. Isolated tumors can be removed with hot or cold wire snare, and the diseased area cauterized with lactic acid. Ulcerations should be curetted.

The treatment of tuberculosis of the accessory sinuses is wholly surgical, the removal of the diseased area being indicated. The permanent results of these operations are not encouraging, as the disease frequently returns after varying periods of time.

Latent tuberculosis of hypertrophied tonsil is now generally admitted.

In tuberculosis of the pharynx, the remedies which have been found useful are menthol and anesthesin, pyoctanin, hydrogen peroxide and chromic acid. The principal remedy is lactic acid, used independently or after curetting. Veis is a special advocate of trichloroacetic acid.

The use of tuberculin preparations is well warranted, in pharyngeal tuberculosis, but local treatment should not be neglected. The injections show the best results with observations of the opsonic index, interrupting

the dose during a descending index and resuming on an ascending index.—*Med. Rev. of Reviews.*

THE PROGNOSIS IN PULMONARY TUBERCULOSIS.—Sterling. In pulmonary tuberculosis neither so-called predisposition, heredity, age, area involved, night sweats nor duration of disease is of absolute determinative value. Very important is the functional condition of other organs and the general nutrition. High or continuously elevated temperature is very unfavorable, as is psychic depression. Most important of all is the condition of the heart and blood vessels. A normal or rather slow pulse is a good sign, but a quick heart, especially early in the disease, is of the gravest importance. It is not influenced by the condition of the nervous system, sex or tendency to hemoptysis. If a quick pulse rate is once established it continues unchanged, even in spite of improvement in local or general conditions or both. The only sign or symptom then of absolute determinative prognostic value is a quick pulse; patients with a very quick circulation do not recover.—*Wiener Klinische Wochenschrift.*

RHEUMATOID DEFORMANS AND THYROID INSUFFICIENCY.—The authors describe a form of chronic, progressive, and deforming rheumatism which seems to be the effect of defective or perverted functioning of the thyroid. It is evidently a primary affection, most frequent in women, especially in those who have had numerous pregnancies or dysmenorrhœa. There is frequently a history of acute articular rheumatism. Vincent has lately pointed out the involvement of the thyroid during acute articular rheumatism, with tumefaction of one or both lobes and tenderness of the gland. He calls this the "thyroid sign," stating that it is the result of exaggerated functioning of the gland, and that it is observed, although to a less extent, in most infectious diseases. It is absent in the very mild and in the very severe cases. In acute articular rheumatism, when the thyroid sign is absent, the disease usually is extremely protracted. In this case thyroid treatment shortens the course of the disease. The thyroid sign is generally transient, but it may persist and increase and terminate in exophthalmic goiter. They have recently reported some cases of this sequence. A thyroid origin for deforming rheumatism is suggested by concomitant symptoms suggesting a tendency to myxœdema, such as desquamation, hypertrophy of the nails, scleroderma and psoriasis, œdematous infiltration of the tissues, somnolency, and headache, and exacerbation of these symptoms with the joint attacks. The most characteristic feature of the trouble is that it is benefitted by thyroid treatment.

Deforming rheumatism is generally rebellious to medication, and the improvement under thyroid treatment confirms the theory of thyroid origin. They advise a trial of thyroid treatment in every case of this disease, suspending it at the least symptoms of intolerance, examining the urine every two or three weeks, and noting the quantity every day and the blood pressure and pulse every second day, and taking the weight every week.

Thyroid treatment is contraindicated in active tuberculosis and in heart disease. If the pulse reaches 100, the blood pressure drops to 14, the amount of urine surpasses two liters, and the nitrogen proportion falls be-

low 80 per cent., it is best to suspend the thyroid treatment for a few days. Iodin may also prove effectual. Among the cases reported is that of a woman of 28 given Roentgen treatment for excessive growth of hair on chin and neck. Under the influence of this treatment, chronic deforming rheumatism developed and signs of a tendency to myxœdema. Suspension of the treatment and administration of thyroid extract restored conditions to normal. Rheumatism from thyroid insufficiency has a slow and progressive evolution subject to remissions or even spontaneous retrogression. In one case all the symptoms vanished as exophthalmic goiter developed.—Sergent and Menard, *Presse Medicale*, July 15, 1908; *Journal of the American Medical Association*, August 22, 1908.

THE MANAGEMENT OF HERNIA.—Joseph Weiner, (*Amer. Jour. of Surgery*, October, 1908,) gives the following comprehensive review of the treatment of hernia:

Palliative Treatment.—This may be summed up into one word—truss. If the hernia be a small enterocele it may be well and comfortably retained for many years by a properly fitting truss, preferably one with a water or glycerine pad. The larger the hernial ring the more difficult it will be to retain the hernia. Obesity also renders it more difficult. It is easier to retain an inguinal than a femoral hernia, but easiest of all to retain is the umbilical hernia. If the hernia cannot be completely reduced, a truss should not be worn. A congenital hernia is more amenable to truss treatment than an acquired one. The younger the subject the better the chance of a cure by the truss. The best results are obtained in infants and children; the growth and development of their muscular system is an important factor in bringing about a cure. The truss consists of two parts, the pad which compresses the hernial opening and the spring or belt which holds the pad in situ. In many cases it will be necessary to have a double pad (even though the hernia be unilateral), as the single pad will often not remain well in place. The points of importance in a truss are that it should be light, firm and elastic, and it should comfortably retain the hernia in all positions of the body. If the pad does not sit well, if the spring is not strong enough, it will allow the hernia to slip out behind it. If the pressure is too firm it may cause an enlargement of the hernial opening or cause inflammation. The truss should be applied before rising in the morning and should be worn continuously all day. In some cases, as in chronic bronchitis, or where the patient arises regularly during the night, it may be well to order a light truss to be worn at night. A waterproof truss can be made to be worn when bathing. The pad may be made of wood, hard rubber, or preferably consist of a bag filled with water or glycerine and covered with silk or leather. The size of the pad will depend on the size of the hernial opening. It should overlap the opening by at least half an inch all around. The pressure should be exerted at a right angle to the plane of the hernial canal. The spring of the truss passes around the body just below the iliac crest. If it is on the crest, the abdominal muscles will displace it; if much below the crest, the gluteal muscles will disturb it. From time to time the spring will require adjustment, either for the comfort of the patient or to properly retain the hernia. To test the

efficacy of the truss the patient should strain in such positions as will most relax the hernial opening.

If the hernia cannot be well controlled or if in spite of the truss the hernia becomes larger, or if the patient refuses to wear the truss, then an operation is indicated. A patient should not be allowed to go about with a reducible hernia unless a truss is worn.

Radical Treatment.—The operative technic for the cure of inguinal, femoral, as well as umbilical heria has been so much improved that we can now promise a cure in over 90 per cent. of our cases of reducible hernia. By using kangaroo tendon or chromicized catgut we can with impunity bury our deeper sutures without the risk of subsequent sinus formation. The use of silver wire filagree enables us to cure many otherwise improbable cases. The danger of infection in reducible hernia is almost nil and there should be no mortality. The old treatment of injecting an irritating fluid into the tissues about the neck of sac need be mentioned only to be condemned. The same applies to the injection of paraffin.

INTERPRETATION OF THE VENOUS PULSE.—Bachmann has made an extensive literary and laboratory study of the venous pulse, and offers the following conclusions: The physiological or so-called negative systolic venous pulse consists of three positive and three negative waves, bearing a more or less definite relation to the events of the cardiac cycle, and having their origin in the various movements of the chambers and structures of the right heart. The first positive wave is presystolic in time and is due to the contraction of the auricle causing a slowing of the venous current and producing a centrifugal wave through a sudden arrest of the inflowing blood. The second positive wave is protosystolic in time and originates in the sudden projection of the tricuspid valve into the cavity of the auricle during the quick incipient rise in intraventricular pressure during the protosystolic period. The third positive wave occurs towards the end of the ventricular systole. It consists of two lesser waves separated by a shallow notch. The factors entering into its formation are the relaxation of the papillary muscles at a time when the intraventricular is still higher than the intra-auricular pressure, this resulting in an upward movement of the tricuspid leaflets, and to the return of the auriculoventricular septum to its position of rest.

The first negative wave is due to the relaxing auricle. The second negative wave occurs during the diastole of the auricle. It is due to the dilation of its walls, to the displacement of the auriculo-ventricular septum towards the apex occurring at the time of the ventricular systole, and to the pull of the papillary muscles on the tricuspid valve leaflets. The third negative wave appears during ventricular diastole and in the common pause of the heart chambers. Its cause is found in the passage of blood from the auricle into the ventricle. It is somewhat modified, possibly by the continued ascent of the auriculoventricular septum and by a wave of stasis due to the accumulation of blood coming from the periphery.—*American Journal of the Medical Sciences*, November, 1908.

GLAUCOMA MALIGNUM AFTER IRIDECTOMY FOR GLAUCOMA. RECOVERY AFTER POSTERIOR SCLEROTOMIES.—Basel Hegner has observed a case in

which incipient glaucoma was caused by an attack of influenza. After an attack of follicular catarrh the glaucoma symptoms became very intense, so that an iridectomy was performed in spite of a doubtful prognosis.

The eyeball remained hard, the anterior chamber did not reform and vision consisted of hand movements. After two posterior sclerectomies the anterior chamber reformed, the tension fell and vision was improved. A cystoid cicatrix formed at the scleral portion of the iridectomy, which with the use of miotics, was sufficient to restore the vision to 2-7 of normal, which was retained for eight months. The patient returned two years after the operation with practically the same vision as she had when last seen. She had had no treatment during this interval.—*Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

HAS THE SERUM TREATMENT OF DIPHTHERIA RESULTED IN A DECREASE OF THE CASES OF ACCOMMODATION PARALYSIS?—In ten years Bylsma has had 46 children with post-diphtheritic paralysis of the accommodation, in none of whom the diagnosis of diphtheria had been made, on account of the mildness of the case or the location in the nose. In all cases, the accommodation only was affected, the pupils being intact. No patient had been treated with serum. In the same ten years he had never had a case of paralysis when the patient had been treated with serum. From this he concludes that serum treatment is to be credited with prevention of post-diphtheritic accommodation paralysis.—Dr. R. Bylsma, *Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

INFLUENCE OF DIONIN ON THE DEEPER TISSUES.—Aret, of Vienna, reports the following case: Patient, 40 years of age, noticed December 14, 1907, on awakening, that the vision of his left eye was impaired. Twelve days later he came to Aret, complaining of blurring of central vision. On the night of December 13th, he had so severe an attack of coughing that he vomited. Both eyes were myopic. Ophthalmoscopically, a nearly oval hemorrhage into the macula, of about 1.5 M. M. diameter. To this corresponded a central scotoma. There was no arterio-sclerosis. Treatment with dionin was begun January 2, 1908. Fifteen minutes after the use of 0.005 grms, in powder form, the patient said he could see better. The vision had increased from 5-8 to nearly 5-6. The next day the vision was 5.5, there was no trace of a scotoma, and the ophthalmoscopic examination was negative. One month later, the fundus was still normal and vision unimpaired.—*Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

THE INSTILLATION OF FIBROLYSIN IN THE CONJUNCTIVAL SAC.—Windmuller first drops a 2 to 10 per cent. solution of dionin into the conjunctival sac in order to increase the absorptive power of the eye, and when it has acted, uses the fibrolysin. This can be done 1 to 3 times daily, and for weeks at a time. There is some pain at first, but this quickly passes away. The best results were in cases of corneal scars, where increase of vision and improvement of the cosmetic appearance was noted.—*Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

WANDERING OF THE PIGMENT IN A TATOOED LEUCOMA.—The author had a patient with a leucoma from a gonorrheal infection, which he tattooed in three sittings, so that at some distance it could not be distinguished from its surroundings. For about one week the eye was irritated. During that period, however, a slight prominence formed on the lower half of the leucoma, around which the pigment tended to collect in an irregular areola.

Simultaneously, the rest of the leucoma lost its pigment. About one month after the first operation, a second was performed, when the result was permanent. Steiner believes there was a leucocytosis during the period of irritation, and that the leucocytes carried away the pigment granules.—Dr. L. Steiner, *Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

THE THERAPEUTIC ACTION OF TRYPSIN IN CANCER.—(Pinkuss, Berlin). The encouraging work of v. Leyden, and of his associates Blumenthal and Gergell, seem to indicate that in the study of cancer chemical questions are of greater importance than morphological. It appears that the cancer cell has a different chemical constitution, that it is more resistant to peptic ferments and less resistant to tryptic ferments. In the cancerous organism there are less ferments than in the normal body; the prolific growth of a cancerous tumor, which represents its malignancy, depends upon the lack or defective quality of ferments in the organism, which is probably specific. The practical thought was suggested to seek to obtain a specific katabolism of the malignant tissue by means of trypsin or similar ferments which have a certain selective action upon carcinoma. Beard has shown that the cells of the impregnated ovum contain peptic ferments through which, like protozoa, their nutrition is provided. He has shown also that cancerous tumors contain acid peptic ferments, and are defective in trypsin. He therefore suggested to augment the amount of such ferments by the use of trypsin subcutaneously. Later he also proposed the use of amylopsin, the starch and glycogen splitting ferment of the pancreas. These substances have been used in various ways by several experimenters. On injecting trypsin into the substance of the cancer itself, the disintegrating action of the ferment has been manifested to an excessive degree, and rapid and dangerous destruction of the tumor has resulted. Pinkuss has therefore endeavored to obtain a modified action of these ferments by subcutaneous injection and internal administration. The painstaking experiments of this author have resulted in showing that trypsin is not poisonous in the normal body. Its effect in cancer cases was to limit the growth of an inoperable cervical cancer; to soften one of the nodules of a cancer of the face, to cause the swelling and redness to disappear, and the infiltration to diminish; to almost entirely remove the pain in a cancer of the breast; and in all cases to improve the appetite and general well-being of the patient.—*Zeitschr. f. Geb. u. Gyn.* Vol. 61, 400.

THEODORE J. GRAMM, M. D.

DISINFECTION OF THE HANDS.—In a long article Ahlfeld has reviewed the entire subject of hand disinfection especially in its relation to the phy-

sician in general practice. Ahlfeld has for many years been an ardent advocate of hot water alcohol hand disinfection, and he says in view of his retirement from active clinical work it will probably not be possible in future to present further clinical proof of the advantage of this method, and therefore in this article he wishes to present the status of the question at the present time. It will not be possible in a brief abstract to do justice to the many telling points made in this article, but we can at least state the several steps of the method of whose applicability and effectiveness Ahlfeld is more than ever convinced. He insists that the details of his method are important. The several steps are as follows:

1. The use of water heated to 95 to 113° Far.
2. Before beginning the use of the brush, the hands are to be fully covered with soap lather and rubbed against each other thoroughly, so that every part of them are acted upon by the soap; the hands are then rinsed in water, and the procedure repeated.
3. The nails are then to be cut and cleansed.
4. Washing again with soap and water, as above.
5. Drying the hands, and each finger separately with a rough towel.
6. Then follows the main part of the preliminary cleansing, namely the scrubbing of the hands. This part is accurately described, but in general terms may be said to consist in accurate attention to each part of the hands. This much of the hand disinfection should occupy ten minutes, and never less than five minutes.
7. Drying and rubbing the hands and each finger with a dry towel.
8. Now follows the alcohol disinfection, consisting in the use of 80 to 90% alcohol in a basin, and brushing the hands carefully; special attention being given to each part of the hands. This should continue for three minutes.
9. Rubbing the hands with a square of flannel dipped in alcohol. The moistened flannel is placed over the hands and each part of them thoroughly rubbed for a period of two or three minutes. This completes the disinfection. If a bacteriological examination of the hands is to be made, of course the alcohol must be removed.—*Volkmann's Samml. klin. L. Vorträge*, 492.

THEODORE J. GRAMM, M. D.

INFANTILE UTERUS.—Karl Hegar concludes his article by saying that the results of his investigations are briefly as follows: One class of anomalies of form, position and size of the uterus depending upon congenital defects of development especially infantilism, may be grouped together; these are hypoplasia and infantilism of the uterus, congenital and virginal prolapse, congenital elongation of the supra and infra-vaginal part of the cervix, conical form of the vaginal portion of the cervix with stenosis of the os externum. These disturbances of development occasion symptoms of the sexual life; virgins have menstrual difficulties, and in women there are injuries from coitus, vaginismus, sterility, abortion, and various disturbances of labor caused by rigidity of the cervix.—*Beiträge z. Geb. u. Gyn.* Vol. 12, 101.

THEODORE J. GRAMM, M. D.

BACTERIOLOGY OF THE PUERPERAL PERIOD.—This subject is still a vital question. The results of Mansfeld's studies have shown that the uterus of a febrile puerpera on the fourth and fifth day of the puerperal period contain germs in 60% and in 22.5% there are streptococci. The cases where the lochia contain germs are not distinguishable from those where it is sterile. On the fifth day streptococci were present twice as often as on the fourth day. The number of internal examinations, the duration of the labor, the manner and duration of the delivery of the placenta do not explain the presence or absence of the germs. The ordinary slide preparation in febrile cases does not give information of the sterility of the uterus, that is it does not prove sterility, if nothing appears in this preparation, since in these cases the number of germs seems to be quite small, and it often happens that the germs only become recognizable in the culture. Removing secretion from the uterus seems to be harmless, but it is not an entirely indifferent procedure for the woman. The absence of symptoms induced by these germs of the normal puerperal period seems to be explained by their small number and by their late appearance, still he does not believe that the importance of puerperal bacteriology is at all diminished. In cases febrile from extragenital causes the lochia is sterile. In all cases of puerperal fever the great number of germs is demonstrated by the slide preparations containing many germs, and in no case was sterile. The mild cases and those which but slightly affected the endometrium showed mixed infection of streptococci and rods. The severe puerperal fever cases showed streptococci in pure culture. It was possible from the above facts to diagnose the case. Since in mild and in severe cases the streptococci seemed to be the same, it appears to be impossible to further differentiate the cases from the morphology of the streptococci. Bacteriological examinations do not seem to promise more for prognosis, but much more is to be expected from a study of the reactionary powers of the system.—*Zeitschr f. G. u. G.* Vol. 83, 621.

THEODORE J. GRAMM, M. D.

GONORRHOEAL OPHTHALMIA. Herff has tried to determine whether it is possible to diminish the number of these cases, and has found that in the city of Basel this disease occurs in 7% of children, while in the hospital located there the number could be diminished to 2.7%. It appears, therefore, that nitrate of silver is able to give protection within certain limits. The disease mostly affected the illegitimate children. In these the author advocates compulsory use of Crede's method, while it should be also used on principle in legitimate children, and only omitted when the parents object. It is important to use the most unirritating silver salt. In 30% of cases v. Herff observed symptoms of irritation. Lately he has used saphol and saw irritation in but 10% of cases. He believes the time has come to discontinue using the nitrate, and instead to use other silver salts, such as saphol or argyrol.—*Abstr. in Zentralbl. f. Gyn.*, 1908, 91.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

SUMMARY OF HERING'S PROVINGS OF TELLURIUM.—*Stonham* in a review of the action and uses of tellurium presents the following resume of Hering's provings: Difficult retching, accumulation of water in the mouth, followed by yawning; a strange sensation as if sound waves pushed against the pharynx below; pains chiefly in the left side of the head and in the forehead above the left eye, and various pressive pains in different parts, such as the metatarsal bones, and a sensation in the anterior fold of the left axilla as if a round tumor existed there. He also found himself neglectful and forgetful, and everything seemed too much trouble; sexual instinct more powerful with subsequent prolonged reaction; continued ill-smelling sweat of the feet, and a peculiar distortion and twitching of the left facial muscles, often when speaking the left angle of the mouth being drawn upwards and to the left.—*Journ. of the British Homoeopathic Society*, October, 1908.

DUNHAM'S PROVINGS OF TELLURIUM.—*Dunham* took one grain of the fourth trituration every night for five days. About twelve days after the first dose, the left ear began to itch, burn and swell. Aching and throbbing pains in the external meatus, and in three or four days there was copious watery discharge from the ear having odor of fish pickle; it was offensive and acrid, and caused a vesicular eruption on the lower lappet of the ear, and on the neck wherever it touched the skin. The inflammation of the ear generally was not vesicular; the color was a bluish red, and the ear had the appearance of being infiltrated with water. During the second month after taking the drug, the spine from the last cervical to about the fifth dorsal vertebra became very sensitive and the seat of peculiar irritability, which made the prover dread having the part touched or even approached. This dread was disproportionate to the actual sensitiveness of the parts. From the last cervical vertebra a peculiar irritation seemed to radiate upwards into the neck, outwards into the shoulders, and forwards through shoulder to sternum. The distress caused by this sensation was aggravated by fatigue, but only partly relieved by repose. On two subsequent provings being made with the same preparation within two years of the above, substantially the same symptoms were reproduced.

An examination of the ear made by Dr. Houghton showed an irregular thickening of the membrana tympani in parts; in others thinned, the result of perforation and cicatrization.—*Ibid.*

TELLURIUM IN DISEASES OF THE EAR.—Dunham following out the suggestions offered by his provings, reported the following case: Child aged 9 years had otorrhoea since infancy; quite deaf; purulent discharge from the ear; bleeding from ear quite profuse, provoked by slightest manipulation of the meatus. Phosphorus and lachesis failed. Tellurium 30 cured in four months with improvement, greatly improved hearing.

Houghton regarded tellurium as surely a specific for otitis media with an acrid discharge as pulsatilla when it is thick and bland.—*Ibid.*

TELLURIUM IN SPINAL HYPERÆSTHESIA.—Shelton reports two cases of spinal hyperæsthesia. Widow, aged 50, complained of pain and soreness over the upper dorsal vertebræ, extending thence down the left side and arm. She shrank from the slightest touch and the sensitiveness was so acute that when touched the pain extended into the occiput and all over the upper part of the back. In twelve days after taking tellurium 6, she was much better. In another week she was quite well.

Young woman, aged 29; attack of spinal meningitis ten years previous. Complained of burning pressing pain at the base of the brain. This grew worse and gradually ptosis came on and then right hemiplegia, followed by left, till she became quite helpless and lay for months in bed bolstered up by pillows. During some of the time, the head was drawn backwards and there was a feeling as if she were being drawn into a reclining position, which aggravated her sufferings. The hyperæsthesia of the spinal column and the entire surface of the back became quite distressing. She could not bear the slightest touch, which was felt not only at the point of contact, but also in her head and in remote parts of the body. Tellurium 6 was prescribed. She slowly and steadily improved, and one by one all her symptoms passed away.—*Ibid*

TELLURIUM IN SACRAL AND SCIATIC PAINS.—Kitchen proved the 3rd trituration, and had pain in the sacrum sometimes stabbing, worse on stooping or on rising up, passing down the right sciatic and making it almost impossible for him to press to stool; restlessness. A woman prover had pain and soreness beginning in the renal region, extending downwards, and also gnawing, rubbing pains low in the back. In accordance with these symptoms, tellurium has been found useful in sacral and sciatic pains having the modalities mentioned in the provings.

Shelton cured the following case presenting sacral pain: Spinster, aged 45, had severe blow on the sacrum; in bed for some weeks with one point of great soreness just above the spot where the blow was received; other symptoms had passed off, but the sore point persisted, and the back became very sensitive, especially at its upper third. Tellurium 6 was given and symptoms disappeared.

McLachlan reports two cases of sciatica. A young woman had suffered from sciatica for several months; it was on the right side; course of the nerve tender to touch; pain at the upper part of the thigh, the knee and the ankle, with a weak feeling at the hip, which she said was apt to give way. The upper part of the thigh felt as if bound up tightly. It was stiff after rest, and she was unable to lie on the affected side, and moved about to obtain a comfortable place. Rhus, colocynth, and arsenicum failed. Tellurium 6x cured.

Woman aged 70 years, had sciatica. It began with lumbago-like pains, which finally settled in the left sciatic nerve, which was very tender to touch and pressure. The pains darted through to the left iliac region. There was great aggravation on coughing, laughing or lying on the affected side; also on stooping, rising from sitting, straining at stool, and when the bladder was full. Tellurium 6x was prescribed, and improvement was prompt and went on to a complete cure.—*Ibid.*

TELLURIUM IN DISEASES OF THE SKIN.—One of the provers had small red itching spots shining through the skin and coming discretely on many parts of the body. Another prover had eruption of small red pimples with minute vesicles on them on the outside of the calves and inside of the forearms, spreading thence with very severe itching, worse at night in bed. Still another prover had small red papules itching much, on the abdomen, inside of the thighs and perineum. Dr. Metcalf experienced fine sticking and prickling in various parts of the body. On the forehead there came a small group of vesicles on a red areola; they formed a circular cluster, which extended at the circumference, and in doing so, left the skin in the centre desquamating and surrounded by an outside ring of vesicles. A similar eruption appeared on the left flank, and also a second circular ring of vesicles on the forehead near the hair margin. There were also vesicles on small red spots on the scalp, which dried up in a few days, leaving white scales behind. This characteristic of the eruption has led to the use of tellurium in herpes circinatus and ring worm. The speakers in the discussion that followed the reading of the paper did not favor the use of tellurium or any other remedy internally in the treatment of ring worm, as the parasitic treatment was all-sufficient.—*Ibid.*

GENERAL CHARACTERISTICS OF STANNUM METALLICUM.—Stannum produces a condition of extreme neurasthenia with muscular weakness, especially involving the extensors. Its chief clinical uses are in the treatment of coughs, neuralgias and utero-ovarian disturbances. It may be used successfully in the paralysis of deglutition succeeding diphtheria. A paretic state of the muscles is found in all the cases in which it may be indicated, as shown by difficult expectoration, prolapsus uteri, etc. Special symptoms include weakness of the extensor muscles, difficulty in sitting down or descending stairs without falling, the patient being precipitate and uncertain in the performance of these and like functions. The neuralgias are chiefly facial, sometimes ovarian, and are characterized by pains that come and go gradually. The stannum cough is associated with gone, weak, empty feeling in the chest; short breath, profuse sweating with sweetish lemon colored expectoration, giving us a good picture of senile bronchitis.—A. L. Monroe, in the *Medical Century*, September, 1908.

GENERAL CHARACTERISTICS OF CUPRUM METALLICUM.—The pivotal symptom of cuprum is spasm of the voluntary muscles. It is one of the chief remedies in Asiatic cholera, being preferred to *veratrum album* when the muscles of the legs are cramped and drawn up into great knots and the surface of the body is blue.

In *whooping cough* it is indicated when the spasmodic symptoms pre-

dominate over the catarrhal; the paroxysms are long, severe, the face becomes blue and swollen, and the eyes protrude and the child cries with fright at the onset of each paroxysm: secretion and expectoration are slight.

In spasmodic symptoms following suppressed eruption, e. g., blue face distorted eyeballs, distorted facial muscles, etc.—A. L. Monroe, in *Medical Century*, September, 1908.

POTASSIUM BICHROMATE RECOMMENDED IN OLD-SCHOOL LITERATURE.—Volume VIII of the *Practical Medicine Series* contains a reference to the use of potassium bichromate in respiratory troubles, the author stating that like sanguinarin and iodized calcium, it acts best upon those affections involving the fauces, larynx, trachea, bronchi and smaller bronchioles. An exudate of this tenacious sputum, with hoarseness from a cold, accompanied by a hard dry irritating cough, are the special guides to its selection, although it does not matter much what the stage of the respiratory irritation may be, provided that this tenacious sputum is present. In the third stage of chronic pharyngitis, its exhibition will often prove a happy surprise. It is valuable as a relaxant in croup and in capillary bronchitis. The usual dose is 1-67 of a grain every half-hour to two hours, the latter for chronic conditions. For chronic laryngitis, 3 tablets (gr. 1-67) with 3 granules of strychnia arseniate (gr. 1-134), should be given before each meal. A solution of 1-67 of a grain in a drachm of water is very efficient as a spray in aiding the removal of thick tenacious sputum.

GELSEMIUM SEMPERVIRENS IN GONORRHOEA.—Gelsemium restores the discharge in suppressed gonorrhœa, accompanied with rheumatism, orchitis, and fever. It is one of the best remedies we possess in the acute stage of gonorrhœa when a scanty discharge, inflammation and intense pain are the most prominent symptoms.—*Frederick Kopp in the Homœopathic World*, Nov. 2, 1908.

GNAPHALIUM POLYCEPHALUM IN CRAMPS.—This plant is commonly known as cud weed. It is an effective remedy in cramps of the calves of the legs or cramps of the feet when in bed. It is also indicated when there are rheumatic-like pains in the ankle joints and legs.—*Ibid.*

CIMICIFUGA RACEMOSA IN PLEURISY AND RHEUMATISM.—This is a very useful remedy in pleurisy after the alternate administration of aconite and bryonia. It is one of the best remedies we possess for lumbago and in spinal myalgia, when there is a soreness, pain and a feeling of tenderness along the spinal column. It is effectual in both muscular and articular rheumatism, but its action is most pronounced in those cases in which the left side is most affected.—*Ibid.*

PHYSOSTIGMA VENENOSUM IN DYSPEPSIA.—It is useful in those cases in which there is great pain immediately after eating. Constipation from atony of the bowels is an additional symptom.—*Ibid.*

KALI HYPOPHOSPHIS IN DISEASES OF CHILDREN.—This remedy is indicated in cases in which there is a delay of the closing of the fontanelles, non-appearance of the teeth, want of firmness of the bones, much debil-

ity, fretfulness and even diarrhoea. It is best given in the 2x dilution, five minims three or four times daily. It is a fine remedy in the dentition symptoms of strumous children.—*Ibid.*

LAPIS ALBUS IN CARCINOMA.—Lapis albus is useful in those cases in which the cancer is unbroken. It appears to be of but little use in open cancers, and given in large doses, it undoubtedly renders cancerous sores worse.—*Ibid.*

JUGLANS CINEREA IN THROAT AFFECTIONS.—This is a useful remedy in chronic inflammation of the throat when there is much general debility. The throat feels swollen, the pain being on the right side. The throat is sore, the mouth moist, and the lips and fauces dry.—*Ibid.*

LOBELIA CERULEA IN COUGH.—This is a useful remedy when the cough is of a dry hacking nature, and very troublesome both by day and night. There is also pain in the right side near the junction of the sixth rib with its cartilage. Dryness in the back part of the throat is also an important symptom, being characteristic of the drug.—*Ibid.*

ACTION OF MENISPERMUM CANADENSE ON THE MIND.—The mental symptoms of menispermum canadense are that the patient is very low-spirited, absent minded, stubborn, ill-natured, surly, irritable, and of a hasty temper.—*Ibid.*

LYCOPUS VIRGINICUS IN VERTIGO.—This is a prime remedy in the vertigo which comes on while the patient is out in the open air or while sitting down. The tendency of the giddiness is towards the left.—*Ibid.*

NEBULUS SERPENTARIA IN LEUCORRHOEA.—Nebulus serpentaria is useful in leucorrhoeal discharges of a white jelly-like nature, when there are sharp throbbing pains in the uterus. It is also useful in retarded menstruation.—*Ibid.*

OPUNTIA VULGARIS IN DIARRHOEA.—This remedy is indicated in cases of diarrhoea in which the stools are slimy, dark, exhausting, excoriating, and accompanied with nausea and cramps in the stomach and bowels.—*Ibid.*

PHYTOLACCA OCTANDRA IN DIPHThERIA.—Phytolacca octandra has, in some instances, similar properties to phytolacca decandra. Like it, it is indicated in non-malignant diphtheria when there are severe pains in the ear, nape of the neck, and root of the tongue. There is a dryness, soreness, and roughness of the throat present, and a feeling of rawness in the throat and tonsils. It is also useful in scarlet fever, when there are diphtheritic complications.—*Ibid.*

PAULLINIA SORBILIS, IN SICK HEADACHE.—A few grains of the 1x trituration is a prime remedy in the treatment of sick headache, the doses being administered every quarter of an hour. To prevent an attack, the same dose should be taken every morning about half an hour before breakfast.—*Ibid.*

BAROSMA CRETANUS IN CHRONIC GLEET, when there is a profuse discharge and in chronic inflammation of the kidneys, and mucous membrane of the bladder or of the pelvis, accompanied with a profuse discharge of mucus.—*Ibid.*

CADRUUS MARIAE IN GALL STONES.—This is a very efficient remedy in cases which are associated with jaundice, vomiting of bile, pain in the stomach, scanty bright yellow urine, painfulness and swelling of the liver, oedema of the feet, and painful tenderness and swelling of the gall bladder.—*Ibid.*

CHELIDONIUM MAJUS.—The chelidonium patient has a very great distaste for mental work, and feels lazy and sleepy, and there is great exhaustion, languor, and prostration, with weariness and exhaustion of all the limbs. There is often a present total loss of appetite and great emaciation.—*Ibid.*

EUCALYPTUS GLOBULUS IN DIARRHOEA.—It gives the best results in those cases of diarrhoea in which the stools are thin and watery, and preceded by aching and sharp pains in the lower part of the bowels. It has also proved efficient in chronic diarrhoea when mucus and blood are present, and in typhoid and dysenteric diarrhoeas.—*Ibid.*

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

THE PRESERVATION OF HEALTH.—According to *Drug Topics*, both the dog and cat are, like the mosquito, carriers of disease. "The dog is susceptible to many diseases. The two we, as sanitarians, are interested in are hydrophobia and tapeworm. It is of the latter that I speak. The dog eats raw meat, gets the tape worm in its larval state from the beef, and within the dog it develops the adult worm. From intimate association the eggs of this worm infect the child or the man." In Lapland where dogs and men live in close intimacy, tape worm is very common. One form of tape worm is found in children, due to the fact that dogs caress them with their tongues." From the same cause the human organism is infected with the egg of the *Tania echinococcus*, which remains in the larval stage. This worm inhabits the intestines of the dog, and its cystic form infests the sheep, just as the cystic of the human *Tania solium* is found in pigs, and that of the *Tania mediocanellata* in cattle. And we all know, that if the ova of the dog's tænia, by any accident, reach the human intestine, an embryo in due time escapes, and finds its way to the liver, where it loses its hooks, and is transformed into a vesicle or cyst, containing a clear liquid.

According to Lindley, however, the cat is the greatest menace of all domestic animals. "As a cat fancier said to me a few days ago,—there is scarcely any disease that the cat does not have,—*Diphtheria* and ringworm are the two diseases that it ordinarily disseminates. One cat has been known to distribute diphtheria among the children of a whole neighborhood. *Ringworm*, the scourge of the school and the orphan asylum, is usually introduced by cat."

E. FORNIAS, M. D.

THE SERUM OF THE EEL.—The clinical observations already made with this *ichthyotoxin*, have plainly demonstrated its value as a therapeutic

agent in *asystolic conditions* characterized by weakening of the heart's contraction, diminution of the arterial tension, and increase of the venous expansion, and in which, by reason of this *cardiac insufficiency*, we may have pulmonary congestion, hemoptysis, dyspnoea, peripheral stases, oedema, anasarca, hypertrophy of the liver, ascitis, congestion of the kidneys, oliguria and renal incompetence.

Jousset, who was led to the study of *eel's serum* by its resemblance to the serum of the *viper*, claims that clinically, it has a very efficacious action upon *functional diseases of the heart*. According to this authority, its chief indications are: Mitral insufficiency, asystolia, with or without oedema, dyspnoea, and deficient secretion of urine. In one of the early meetings of the "*Societe Francaise d'Homoeopathie*," this year, he stated that ten drops of the 1x of this toxin is sufficient to re-establish diuresis. Its action is analogous to *digitalin*. Digitalin 3x, 40 to 50 drops in three doses, has a more positive action than *eel's serum* in asystolia, but when it is necessary to maintain the compensation re-established by the former remedy, the *serum* is preferable. He has found that when *digitalin* will not act, the *serum* will.

Both remedies, however, have their indications. *Digitalin* is indicated in asystolia, with arterial hypotension and anasarca; it re-establishes tension, increases arterial tension and indirectly causes diuresis without interfering with the kidneys. The *eel's serum*, on the other hand, has a more complex action upon the liver, kidney and heart, and, clinically, it should be given when *digitalis* fails, in order to maintain the compensation this remedy has effected. Asystolia, cardiac liver and albuminuria, are symptoms calling for the *serum*. Three symptoms imperatively demanding *digitalin* are: The weakness of the cardiac impulse, revealed by the smallness and intermittency of the pulse, and the oliguria and anasarca.

Crystallized *digitaline*, in doses of 30 to 50 drops of the 3x dilution, given in two parts during the day time, replaces with advantages the maceration of the leaves. Its action is more sure and rapid, and its administration easier. Usually, at the end of 24 hours, the increased flow of urine and the amelioration of the general symptoms announce its good effects. This favorable action, after the above doses, continues for four, six, eight and twelve days, if not interfered with by the administration of any other remedy. It is perfectly homoeopathic, for it cures the asystolia it produces.

The *eel's serum* was first introduced, as a precious therapeutic agent, in *kidney and heart disease*, by Dr. P. Jousset, one of the leading homoeopathic physicians of France, and valuable reports are already at hand about its successful application, in cardiac trouble with threatened uræmia, in renal congestion, with consecutive nephritis; in rheumatic endocarditis; and asystolic conditions of various origin.

From Jousset's own experiments, and those of Mosso and Phisalix, we may well conclude that the *serum of the eel* produces both albuminuria and hematuria, with a consecutive lowering and rising of the pulse, which under a large dose becomes also intermittent, and finally anuria. There is often a terminal diarrhoea. The chief lesions are hepatic and renal, and may terminate in coagulative necrosis or vascular degeneration. The cardiac alterations, although not far advanced, consist of rare granulations in the muscular fibres and capillary walls, as well as degeneration of the muscular fibres with masses of round cells and nuclear multiplication.

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